

# TSD File Inventory Index

Date: July 6, 2011

Initial: S. Halpern

Facility Name: <u>Dow Chemical Company (Hanging Rock Plant)</u>			
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Note: Transmittal Letter to Be Included with Reports.

Comments: \_\_\_\_\_

File Inventory Sheet		Box 1 of 1
File Series: Dow Chemical - Hanging Rock Plant		RCRA 207b
ID # OHD 039 128 913		
Folder #	Date	Folder Description
1	3/96	Dow's Pre-hearing Request, Location Views, and Pre-hearing Exchange
	1993-1996	Complainant's Amendment to Pre-hearing Exchange, Complainant's Response to Respondent's Pre-hearing Exchange, Order, Permit Application - Section B & C, 3007 Information Request, Hand Written Notes, <b>some Confidential Documents</b>
	1995-1996	Preamble, Fire Pond Closure-SEP Completion Report. Minutes- Settlement Meeting., Summary fo First Meeting, News Release, Additional Info, Hand Written Notes
	1/22/96	Dow Settlement Offer
2	3/25/96	Pre-hearing Exchange & Motion for Protective Order----- Docket # V-W-001-95
3	1993-1996	BIF Inspection Report, Waste Analysis Data, Certification & Compliance Check List, 3007 Info Request, D & B Report, Complaint & Compliance Order, Complainant's Pre-hearing Exchange, <b>some Confidential Documents</b>
SOME ENFORCEMENT CONFIDENTIAL DOCUMENTS		
		Documents came from ORC - Jerry Kujawa



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

SEP 08 2004

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

REPLY TO THE ATTENTION OF:  
DE-9J

Ms. Gale M. Bradley  
The Dow Chemical Company  
925 County Road 1A  
Ironton, Ohio 45638

Re: Compliance Evaluation Inspection  
EPA I.D. No.: OHD 039 128 913

Dear Ms. Bradley:

On April 28, 2004, a representative of the United States Environmental Protection Agency (U.S. EPA) inspected The Dow Chemical Company located in Ironton, Ohio (the facility). The purpose of the inspection was to evaluate your facility's compliance with certain requirements of the Resource Conservation and Recovery Act (RCRA). U.S. EPA evaluated those regulations related to the Standards for Hazardous Waste Burned in Boilers and Industrial Furnaces found at 40 CFR Part 266 Subpart H and the Air Emission Standards for Equipment Leaks and Tanks found at 40 CFR Part 265 Subparts BB and CC. Enclosed please find a copy of our inspection report.

As of this writing, based upon information available to U.S. EPA, our review of the inspection has not resulted in the detection of violations of any of the specific RCRA requirements under evaluation. This determination does not limit the applicability of the requirements evaluated, other RCRA regulations, or regulations under other environmental statutes. U.S. EPA and the Ohio EPA will continue to evaluate your facility in the future.

If you have any questions or concerns regarding this matter, please contact Michael Cunningham of my staff at (312) 886-4464.

Sincerely,

A handwritten signature in cursive script that reads "Paul Little".

Paul Little, Chief  
Compliance Section 2  
Enforcement and Compliance Assurance Branch

Enclosure

cc: John Rochotte, OEPA, SEDO w/enc.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY - REGION 5  
WASTE, PESTICIDES and TOXICS DIVISION

RCRA Compliance Evaluation Inspection Report

**I. INSTALLATION IDENTIFICATION**

The Dow Chemical Company  
925 County Road 1A  
Ironton, Ohio 45638  
U.S. EPA ID No. OHD 039 128 913

**II. DATE OF INSPECTION**

April 28, 2004

**III. PARTICIPANTS**

Michael Cunningham  
U.S. EPA (312)886-4464

Gale M. Bradley  
Regulatory Affairs Leader  
The Dow Chemical Company (740) 534-3657

**IV. INSTALLATION BACKGROUND AND OPERATIONS**

The Dow Chemical Company (Dow) produces polystyrene and other polymer products. The process generates hazardous waste identified as D001 (ignitable) and D018 (benzene). This hazardous waste, along with the natural gas primary fuel, is burned in Dow Therm Heaters R1 and R3. These heaters utilize a heat transfer agent to recover the heat from burning the fuel and waste and convey it to the manufacturing process.

Each Therm Heater has two automatic waste feed cut-off (AWFCO) valves in series. Each valve has a visual indicator which shows if it is open or closed.

Dow stores the hazardous waste in Tank R35 prior to burning. Tank R35 is a 10,000 gallon fixed roof tank which is vented through a pressure relief valve to the air emissions capture system. The venting system is routed to Therm Heaters R1 and R3 or, when the heaters are not operating, to one of three 55-gallon carbon canisters. The useful life of these canisters is based on the flow rate and organic concentration of the waste. Dow states that the design time limit is 22,000 minutes, but that the canisters are changed after 15,000 minutes. The flow time for each canister is checked daily.

## V. INSPECTION FINDINGS

Michael Cunningham of the United States Environmental Protection Agency, Region 5, Enforcement and Compliance Assurance Branch (ECAB) conducted a compliance evaluation at Dow on April 28, 2004. U.S. EPA evaluated Dow's compliance with the Standards for Hazardous Waste Burned in Boilers and Industrial Furnaces (BIF) Rule found at 40 CFR Part 266 Subpart H and the Air Emission regulations of 40 CFR Part 265 Subpart BB.

The inspection consisted of a tour of the site and a review of the installation records. Upon arrival at the site, I presented my credentials to Ms. Bradley. She accompanied me on the tour and provided the information in this report.

Current inspection logs are kept in the CEM room and are transferred to the main office every month. These inspection logs include checks of Tank R35, the carbon canisters, and Therm Heaters R1 and R3.

Dow complies with the Leak Detection and Repair requirements of the Clean Air Act found at 40 CFR Part 63 Subpart JJJ (63.163 through 63.174) for the equipment managing hazardous waste in light liquid service. This includes Method 21 leak detection monitoring and daily visual inspections. The feed pumps and hazardous waste lines from Tank R35 to Therm Heaters R1 and R3 contain tags with identification numbers. Dow provided the inspector with the semi-annual reports sent to the U.S. EPA, Region 5, Air and Radiation Division to document compliance with the 40 CFR Part 63 requirements. 40 CFR 265.1064(m) states that documentation of compliance with the regulations at 40 CFR Part 63 may be used to document compliance with the regulations found at 40 CFR 265 Subpart BB.

The records reviewed by the inspector included the following: daily and quarterly continuous emission monitoring (CEM) calibration (dated 3/30/04, 12/02/03, 09/04/03, and 06/03/03), annual CEM calibration certification, AWFCO logs, daily inspection logs. All of the reports and logs reviewed were complete.

BIF Rule and Subpart CC checklists are attached to this report.

Attachment

III. PRE-INSPECTION  
BIF CHECKLIST

III. PRE-INSPECTION CHECKLIST

A.

GENERAL FACILITY INFORMATION

1. Facility name Dow Chemical

2. Address

925 County Road 1A  
Trenton, Ohio 45638

EPA ID No.

OH0039128913

3. Facility Contact

Gale M. Bradley

4. Operational status of BIF:

Telephone

(740) 534-3657

a. Interim status - precertified

☒ b. Interim status - certified

c. Permitted

d. Small quantity burner exemption

e. Smelting, melting, refining furnace exemption

5. Brief description of all unit(s) to be inspected (including storage units)

Tank R35

Therm Heaters R1+R3

6. Name of Inspector(s)

Michael Cunningham

7. Date(s) of visit

April 28, 2004

8. Date of last inspection

Time of arrival

9 AM

9. Previous violation(s)

Performed by

(State or Region)



### III. PRE-INSPECTION BIF CHECKLIST

B.

#### BOILER AND INDUSTRIAL FURNACE DESIGN INFORMATION

Complete the following design information for each BIF unit<sup>1</sup>:

BIF No.	Identification of Unit	Unit Type	Design Maximum Production Rate	Type of Air Pollution Control System
1.	Dev Therm R-1	Boiler	9.0 x 10 <sup>6</sup> BTU/hr	NDNE
2.	Dev Therm R-3	"	"	"
3.				
4.				

#### C PRODUCTS AND RESIDUES GENERATED<sup>1</sup>

For each BIF, summarize both the products and waste residues generated by the BIF. Indicate the final disposition of the waste residues:

BIF No.	Products Generated <sup>a</sup>	Residues Generated <sup>b</sup>	Disposition of Residues <sup>c</sup>
1.			
2.			
3.			
4.			

- a Examples: Steam, cement clinker, light-weight aggregate.  
 b Examples: Scrubber liquor, cement kiln dust, baghouse dust.  
 c Examples: NPDES discharge, off-site RCRA landfill, solid waste landfill, Bevill-excluded residue.

<sup>1</sup> Make additional copies of this page if more than 4 units are at the facility.

### III. PRE-INSPECTION

#### BIF CHECKLIST

#### D. IDENTIFICATION OF BIF FEED STREAMS

List each feed stream type that can be fed to the unit under the appropriate category. Describe in general how the facility monitors the feed rate of that stream and determines concentrations of ash, metals, and chlorine/chloride.

##### PUMPABLE HAZARDOUS WASTE<sup>1</sup>

Stream Identification	Type Feed Rate Monitoring	Test Method to Determine Constituent Concentrations	Sampling Frequency*
Process Waste	Continuous	Analysis	Annual

##### OTHER HAZARDOUS WASTE FEED<sup>1</sup>

Stream Identification	Type Feed Rate Monitoring	Method to Determine Constituent Concentrations	Sampling Frequency*

##### ALL OTHER FEEDS<sup>1</sup> (Auxiliary fuels, Industrial furnace raw material feeds)

Stream Identification	Type Feed Rate Monitoring	Method to Determine Constituent Concentrations	Sampling Frequency*
Natural Gas	Continuous	Knowledge	N/A

\* If updated waste analysis plan is available.

<sup>1</sup> Make additional copies of this page, and complete for each feed stream

**IV. INTERIM STATUS**  
**BIF INSPECTION CHECKLIST**

**IV. INTERIM STATUS FACILITIES**

**A. 40 CFR PART 265 STANDARDS (§266.103(a)(4))(Pre-Compliance and Compliance Certification):**

I. BIFs operating under interim status under either Pre-Compliance or Compliance Certification conditions are subject to the provisions of 40 CFR Part 265, Subparts A-H and air emissions standards of Subpart BB. Inspection checklists relating to these subparts are provided in OSWER Directive No. 9938.2A - *RCRA Inspection Manual* and in Appendix B, respectively.

<b>40 CFR PART 265 Subpart:</b>		<b>Section(s)</b>	<b>Comments</b>
A -	General	265.4	See RCRA Inspection Manual
B -	General facility standards	265.11-265.17	See RCRA Inspection Manual
C -	Preparedness and prevention	265.31-265.37	See RCRA Inspection Manual
D -	Contingency plan and emergency procedures	265.51-265.56	See RCRA Inspection Manual
F -	Manifest system, recordkeeping and reporting	265.71-265.77	See RCRA Inspection Manual and Section B of Interim Status Section IV
G -	Closure and post-closure	265.111-265.115	See RCRA Inspection Manual
H -	Financial requirements	265.141-143, 265.147-150	See applicable regulations
BB -	Equipment leaks	All except 265.1050(a)	See Appendix B

# **IV. INTERIM STATUS** **BIF INSPECTION CHECKLIST**

## **B. WASTE ANALYSIS PLAN AND OPERATING RECORD (Pre-Compliance and Certification of Compliance)<sup>1</sup>**

The owner/operator must keep in the operating record all information and data required by this section. Use this section of the Interim Status facility checklist to supplement the general facility standard review performed in Section A above. Complete steps 3-16 to verify the contents of the BIF operating record as required by §266.103(k). This information must be kept for at least 3 years.

Verify that the operating record is complete by evaluating the following:

- Does the operating record include a description and the quantity of each hazardous waste received and methods and dates of treatment? (§265.73(b)(1))
- Does the facility have a Waste Analysis Plan that specifies procedures for collecting and analyzing hazardous waste fuel to determine its physical and chemical characteristics? (§265.13(b))
- Does the plan specify frequency for sampling waste streams? (§265.13(b)(4))
- Does the facility use statistical evaluations and other information to ensure that the sampling frequency is sufficient considering the operating conditions? (§265.13(b)(3))

Yes	No	Comments
✓		
✓		
✓		
✓		

<sup>1</sup> Requirements 7 and 14 only apply to facilities operating under Certification of Compliance. All other requirements are applicable to both Interim Status conditions.

\* Potential violation

**IV. INTERIM STATUS**  
**BIF INSPECTION CHECKLIST**

Yes	No*	Comments
✓		
✓		
✓		
		N/A
✓		
		N/A

10. Does the operating record include complete inspection and maintenance logs (also see Subsection IV E, Equipment and Systems Control for more details of the operating record)? (§265.73(b)(5))
11. Does the operating record document dates, times, and reasons for any automatic waste feed cutoffs (see Subsection IV E, Equipment and Systems Control, of this manual for more details of the operating record)? (§266.103(g))
12. Are there records associated with handling combustion residues (also see Residues, Section VII)? (§266.112)
13. Are any occurrences that required implementation of the contingency plan noted in the record? (§265.73(b)(4))
14. Does the operating record include records and results of compliance testing? (§266.103(c)(3))
15. If a facility is operating under an extension or is recertifying new conditions, does the operating record include evidence that the allowable 720 waste burning hours has not been exceeded? (§§266.103(c)(7)(i)(B), 266.103(c)(8)(i))

\* Potential violation

# **IV. INTERIM STATUS** **BIF INSPECTION CHECKLIST**

## **D. OPERATING LIMITS (Applicable to Pre-Compliance and Compliance Certification):**

Complete steps 27-33 of this checklist to verify compliance with operating limits for interim status facilities. The allowable levels are enumerated in the Certification of Pre-compliance or the Certification of Compliance, whichever the facility is operating under.

Parameter	Allowable <sup>1</sup>	Observed <sup>2</sup>	Comments
27. Maximum production rate	940 <sup>6</sup> lbs/hr	2940 <sup>6</sup> lbs/hr	—
28. Total feed rate of hazardous waste	228 lbs/hr	178 lbs/hr	—
29. Total feed rate of pumpable hazardous waste <sup>3</sup>	N/A	N/A	—

NOTE: Check for unit agreement, e.g., lbs/min vs. ppm. See Appendix A for conversion factors.

<sup>1</sup> Obtain from certification of precompliance or compliance.

<sup>2</sup> The inspector should review a representative sample of the facility's records to satisfy a determination that the facility is in compliance with required limits. If the unit is operating during the inspection, the inspector should check the unit's operating limits at a point in time during the inspection, in addition to spot-checking past operating records.

<sup>3</sup> Not applicable to facilities complying with Tier 1 or Adjusted Tier 1 feed rate screening limits for metals.

# **IV. INTERIM STATUS** **BIF INSPECTION CHECKLIST**

Use this checklist to verify facility compliance with operating limits in §§266.103(c)(1)(v), (vii), and (viii). These limits apply only to interim status facilities that have certified compliance; (the allowable levels are specified in the Certification.) (Applicable to Compliance Certification Only)

Parameter	Allowable	Observed	Comments
36. CO Concentration in stack gas <sup>1</sup> (§266.103(c)(1)(v))	100 ppm	2100 ppm	
37. HC Concentration in stack gas <sup>1,2</sup> (§266.103(c)(1)(v))			
38. Maximum combustion chamber temperature <sup>3</sup> (§266.103(c)(1)(vii))			
39. Maximum flue gas temperature entering a PM control device <sup>3</sup> (§266.103(c)(1)(viii))			

<sup>1</sup> CO and HC can be measured in bypass duct for cement kilns provided that:

- HW is fired only into the kiln; and
- The bypass duct diverts at least 10% of kiln off-gas.

<sup>2</sup> HC limits are required for facilities complying with an alternate CO limit and for industrial furnaces feeding hazardous waste as other than an ingredient at a location other than where products are normally fired.

<sup>3</sup> Not applicable to facilities complying with Tier I or Adjusted Tier I feed rate screening limits for metals.

**IV. INTERIM STATUS**  
**BIF INSPECTION CHECKLIST**

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**D. OPERATING LIMITS (CONTINUED)**

**CONCENTRATION OF METAL, CHLORIDES AND ASH IN EACH FEEDSTREAM**

34. For each Feedstream identified under steps 30-33, verify through the following steps that the owner/operator obtains detailed physical and chemical analyses sufficient to determine the "as-fed" concentrations of metals, chlorine, and ash (§§266.103(b)(5)(ii), 266.103(j), 265.13(a)).
- a) Review waste analysis plan
  - b) Review sampling and analysis data
  - c) Verify that the owner/operator has sufficient historical analyses, industry data, etc., to document feed stream concentrations if actual analyses are not performed and/or available.
35. Where feasible, sample the feed streams being introduced into the BIF and note the flow rates while on-site to further verify compliance with feed rate limitations/standards.



# **IV. INTERIM STATUS** **BIF INSPECTION CHECKLIST**

## **D. OPERATING LIMITS (CONTINUED)**

### **APCS - SPECIFIC OPERATING PARAMETERS (Applicable only to Certification of Compliance):**

Use this checklist to verify operating parameters for air pollution control devices as regulated in §266.103(c)(1)(ix) - (xiii). Check only for devices in use at the facility. These requirements do not apply to facilities complying with Tier I or Adjusted Tier I for Metals and Total Chlorine and Chloride screening limits under §266.107(b) or (e).

Device	Operating Parameter	Allowable	Observed	Comments
40. Wet Scrubber including Wet Ionizing Scrubber (§266.103(c)(1)(ix))	Minimum liquid to gas ratio			
	Minimum scrubber blow down OR Maximum suspended solid content of scrubber water			
	Minimum pH of scrubber water			
	Minimum differential gas pressure across venturi			
41. Venturi Scrubber (§266.103(c)(1)(x))	Minimum differential gas pressure across venturi			
	Minimum caustic feed rate			
42. Dry Scrubber (§266.103(c)(1)(xi))	Minimum caustic feed rate			
	Maximum flue gas flow rate			
43. Wet Ionizing Scrubber OR Electrostatic Precipitator (§266.103(c)(1)(xii))	Minimum electrical power to the precipitator plate (kVA)			
	Maximum flue gas flow rate			
44. Fabric Filter or Baghouse (§266.103(c)(1)(xiii))	Minimum pressure drop			

# **IV. INTERIM STATUS** **BIF INSPECTION CHECKLIST**

## **E. EQUIPMENT AND SYSTEMS CONTROL** (Applicable to Pre-Compliance and Compliance Certification, as noted below):

45. **Equipment** - Use this part of the checklist to verify the working condition of the facility equipment and monitors and to note any problems or inconsistencies. Verify through facility records that this equipment is regularly inspected and/or calibrated (§265.15(b)).

Equipment	Functional	Records of Inspection	Comments
Emergency shutdown and system alarms*	✓		
Valves*	✓		
Pumps*	✓		
Pipes*	✓		
Other Equipment*	✓		
APCD systems	✓		
Hazardous waste firing system	✓		
Monitoring equipment (list equipment)	✓		

\* Frequency based on rate of possible deterioration (§265.15(b)(4))

# **IV. INTERIM STATUS** **BIF INSPECTION CHECKLIST**

46. Automatic waste feed cutoff system (Certification of Compliance) - Verify operation of the automatic waste feed cutoff system whenever one of the following parameters is exceeded (§266.103(g) and §266.103(c)). The facility should demonstrate that cutoffs for all parameters are operational. Check the facility records to determine: the length of time that transpired between an exceedance of one or more of the following parameters and the cessation of waste (feed lag-time). Also check operation of monitoring equipment following a cutoff to assess whether the following parameters were monitored.

Parameter	Established Cutoff Limit	Observed Cutoff Limit	Lag Time?	Length of Cutoff	Comments
a. Maximum CO concentration in stack gas	100 ppm	< 100 ppm	—	—	—
b. Maximum HC concentration in stack gas	—	—	—	—	—
c. Maximum production rate	$9 \times 10^4$ BTU/hr	$9 \times 10^4$ BTU/hr	—	—	—
d. Maximum feed rate of total hazardous waste	228 lbs/hr	< 178 lbs/hr	—	—	—
e. Maximum feed rate of pumpable hazardous waste <sup>1</sup>	—	—	—	—	—
f. Maximum combustion chamber (temperature close to combustion zone)	—	—	—	—	—
g. Maximum flue gas temperature entering particulate matter device	—	—	—	—	—

NOTE: Check for unit agreement, e.g., lbs/min vs. ppm. See Appendix A for conversion factors

<sup>1</sup> Not applicable if complying with Tier 1 or Adjusted Tier 1 metals feed rate screening limits.

<sup>2</sup> Lag time is length of time necessary to complete cut-off. Wastes should not be introduced or treated during cut-off. Check waste feed prior to cut-off to determine if waste treatment has occurred during cut-off. Ensure that the parameters listed in this table are maintained within compliance limits during cut-off.

**IV. INTERIM STATUS**  
**BIF INSPECTION CHECKLIST**

45. Equipment (continued) (Applicable to Pre-Compliance and Compliance Certification):

Yes	No*	Comments
✓		
✓		
✓		
✓		
✓		
✓		

- a. Is an inspection log maintained (§265.15(d))?
- b. Does the inspection log include the date and time of inspection? The inspector's name? Observations made?
- c. Does the log include date and nature of repairs (§265.15(d))?
- d. Is frequency adequate? (§265.15(f)(1))
- e. When in use, are areas such as loading or unloading areas inspected daily for evidence of spills or leaks? (§265.15(b)(4))
- f. Are deterioration and malfunctions remedied in a timely manner? (§265.15(c))

\* Potential Violation

# **IV. INTERIM STATUS** **BIF INSPECTION CHECKLIST**

## 47. Automatic waste feed cutoff system (con't) (Certification of Compliance)

Yes	No*	Comments
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		

i. During the lag time portion of the waste feed cutoff, were operating parameters limited by the certification of compliance monitored?

j. Was waste feed not restarted until all parameters complied with established limits? (266.103(g)(2))

k. Was minimum combustion chamber temperature (that occurred during the compliance test) maintained at all times when hazardous waste residues remained in the combustion chamber? (266.103(g)(1))

\* Potential Violation

**IV. INTERIM STATUS**  
**BIF INSPECTION CHECKLIST**

48. Fugitive emissions (Pre-Compliance and Certification of Compliance) - Verify facility compliance with standards to control fugitive emissions (§266.103(h)).

- a. Is the combustion zone kept totally sealed against fugitive emissions? ☒ yes ☐ no
- b. If not, is the pressure in the combustion zone maintained at lower than atmospheric pressure?  
\_\_\_\_\_yes ☐ no
- c. If not, has the facility implemented an alternate means of controlling fugitive emissions?  
\_\_\_\_\_yes ☐ no
- d. If yes, what is the alternate means and how is it operated?

49. Changes and Variations (Pre-Compliance and Certification of Compliance) - Check for any changes or variations in the operating systems of the unit that may not be allowable under the existing certification. Specifically, check for:

- Changes in combustion properties of hazardous waste, other fuels or industrial furnace feedstocks
- Changes in feed rates of hazardous waste, other fuels or industrial furnace feedstocks
- Changes in BIF design or operating conditions deviating from limits specified in the certification of compliance.

If not allowable, BIF must stop burning hazardous waste.

COMMENTS:

**IV. INTERIM STATUS**  
**BIF INSPECTION CHECKLIST**

**F. HOUSEKEEPING AND GENERAL APPEARANCE (Pre-Compliance and Certification of Compliance):**

For the categories of equipment and operations listed below, make notations as appropriate regarding observations during the inspection (e.g., leaks, spills, fugitive emissions, structural integrity, operability, safety, etc.)

EQUIPMENT/OPERATION	COMMENTS
50. Waste handling/feeding operations and equipment	OK
51. Combustion unit	OK
52. Air pollution control equipment	N/A
53. Residue handling operations	N/A
54. Process instrumentation (including all CEMS)	OK
55. Appearance of stack emissions	OK
56. Records of dump stack openings	N/A
a. Number of incidents and time frame:	N/A
b. Causes of openings:	N/A
c. Corrective action taken:	N/A

## Inspection Checklist for Subpart CC: Air Emission Standards (Tanks)

Applicability: The air emission requirements apply to units subject to Subpart J \* unless any of the following apply:

Item # 40 CFR:

\*Note: CESQG's and SQG's are exempt

CC-T1	265.1	Do any of the following general exclusions apply? If yes, please circle.	YES	NO
1. Wastewater treatment units -265.1(c)(10)      4. Elementary neutralization units -265.1(c)(10) 2. Emergency spill management units. -265.1(c)(11)      5. Totally enclosed treatment units. -265.1(c)(9) 3. Hazardous waste recycling units. -265.1(c)(6)      6. Satellite accumulation areas. -265.1(c)(7) - 262.34(c)(1)				
CC-T2	265.1080	Do any of the following exceptions apply? If yes, please circle.	YES	NO
1. Waste was placed in the unit prior to Oct. 6, 1996 and none has been added since. -265.1080(b)(1) 2. The unit has stopped adding waste and is undergoing closure pursuant to an approved closure plan. -265.1080(b)(3) 3. The unit is used solely for onsite treatment or storage as a result of remedial activities required under corrective action, Superfund, or other similar state program. -265.1080(b)(5) 4. The unit is used solely to manage radioactive mixed waste. -265.1080(b)(6) 5. The unit operates with an emission control device regulated by and in accordance with Clean Air Act regulations. -(b)(7) 6. The unit operates with a process vent as defined in 264.1031, regulated under Subpart AA. -265.1080(b)(8)				
CC-T3	265.1080(d)	Administrative Stay for Organic Peroxide Waste:	YES	NO
If the unit receives hazardous waste generated by organic peroxide manufacture, and the owner/operator has met the conditions as set forth in 265.1080(d), the requirements under Subpart CC are administratively stayed, <i>except for the record keeping requirement</i> , which additionally include the notification requirement as given in 265.1080(d)(3).				
CC-T4	265.1083	Do any of the following exemptions apply? If yes, please circle.	YES	NO
<b>General Standards:</b> The owner/operator must control air emissions from waste management units except the unit is exempt if: 1. All hazardous waste entering the unit has an average VO concentration at the point of origination less than 500 parts per million by weight (waste determination required by 265.1084; see CC-T5). -265.1083(c)(1) 2. The organic content of all waste entering the unit has been reduced by one of the 8 acceptable processes. -265.1083(c)(2) 3. The unit is a tank used for certain biological treatment consistent with 265.1087(c)(2)(iv). -265.1083(c)(3) 4. The hazardous waste placed in the unit meets the LDR numerical concentration limits given in 268.40 or has been treated using the LDR treatment technology specific for the waste (specified in 268.42). -265.1083(c)(4) 5. The unit is a tank within an enclosure used for bulk feed to an incinerator and meets certain requirements. -265.1083(c)(5)				
CC-T5	265.1084	Waste Determination	Determination Not Needed	Determination Needed
Was the VO concentration properly determined for each waste which the facility manages in a unit which does not meet Subpart CC requirements? The concentration must be determined by either direct measurement or knowledge. Please see 265.1084 for specific requirements for measurement and knowledge. Determination is <b>not</b> needed for waste managed in tanks which meet Subpart CC standards. It may be necessary to evaluate tank management prior to requiring VO concentration determination.				



## TANK MANAGEMENT

Level 1 tank controls apply only to a fixed-roof tank in which the maximum vapor pressure of organic waste is less than that listed below for each tank design capacity, contents are not heated above the temperature of vapor pressure determination, and no waste stabilization is conducted in the tank. -265.1085(b)(1)

Tanks that exceed Level 1 criteria must use Level 2 controls; tanks that do not exceed Level 1 criteria may use Level 2 controls. The five design options for Level 2 controls are given below; vented fixed-roof tanks are the most common. -265.1085(b)(2)

Tank Design Capacity	Level 1 pressure limits	Level 1	Level 2
≥ 151 m <sup>3</sup> / 40,000 gal	< 5.2 kPa / 0.75 psi	Fixed-roof tanks -265.1085(c)(1) through (c)(4) -265.1085(d)	Fixed-roof tanks vented to control device -265.1085(g) External floating roof tanks -265.1085(f) Fixed-roof with internal floating roof - 265.1085(e) Enclosure vented to combustion device -265.1085(i) Pressure tank -265.1085(h)
< 151 m <sup>3</sup> and ≥ 75 m <sup>3</sup>	< 27.6 kPa / 4.0 psi		
< 75 m <sup>3</sup> / 20,000 gal	< 76.6 kPa / 11.1 psi		

265.1085(c)

### Level 1 Controls for Fixed-Roof Tanks

NA=Not Applicable NI=Not Inspected OK= In Compliance DF= Deficiency

CC-T6	265.1085(c)(1)	Vapor Pressure Determination	NA	NI	OK	DF
Has the owner/operator determined the maximum organic vapor pressure of the waste in the tank: by direct measurement or by knowledge? Is the determination acceptable? Does waste in tank exceed vapor pressure threshold for tank size? (If yes must use Level 2 Controls)			-265.1085(c)(1) -265.1084(c)(3,4)		<input checked="" type="radio"/> YES <input checked="" type="radio"/> YES <input checked="" type="radio"/> YES	<input type="radio"/> NO <input type="radio"/> NO <input type="radio"/> NO
CC-T7	265.1085(c)(2)	Tank Design Specifications	NA	NI	OK	DF

The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank shall be installed such that there are no visible cracks, holes, gaps or other open spaces between roof and tank wall / closure device and roof. Inspect the fixed roof and closure devices of each tank or a representative percentage of multiple tanks; list and photograph defects at each.

Tank #	Defect(s)	Photo #	Notes

Is each opening in the fixed roof (sampling port, conservation vent, level indicator, safety valve, etc.):

265.1085(c)(2)(i)(A)

equipped with a closure device such that when closed there are no visible cracks, holes, gaps or other open spaces? or;

265.1085(c)(2)(i)(B)

connected via a closed vent system to a control device? (If YES see Level 2 Controls checklist below)

☒ YES

☐ NO

☒ YES

☐ NO

CC-T8	265.1085(j)	Waste transfer requirements	NA	NI	OK	DF
-------	-------------	-----------------------------	----	----	----	----

Transfer of hazardous waste to the tank from another tank subject to 265.1085 or surface impoundment subject to 265.1086 shall be conducted using continuous hard piping or other closed system, to prevent exposure of waste to atmosphere; except under conditions given in 265.1085(j)(i).

CC-T9	265.1085(c)(3)	Operating requirements	NA	NI	OK	DF
-------	----------------	------------------------	----	----	----	----

Cover and closure devices shall be closed at all times except when performing routine inspections, sampling, maintenance and cleaning.

Opening of a pressure/vacuum relief valve, conservation vent or similar device is allowed during normal operations to maintain tank pressure within design specifications. Opening of a safety device is allowed at any time.

Are pressure/vacuum relief valves and conservation vents designed to operate with NDE when secured in closed position?

☒ YES

☐ NO

Are the opening settings of these devices consistent with the manufacturer's recommended operating ranges?

☒ YES

☐ NO

What are the pressure settings of these devices and how do they compare with Level 1 vapor pressure limits?

☒ OK

☐ DF

CC-T10	265.1085(c)(4)	Inspection requirements	NA	NI	OK	DF
<p>The fixed roof and closure devices shall be visually inspected for defects initially, on or before December 12, 1996, or when first in service and thereafter at least annually, according to written plan; except when unsafe, and delay conditions are met. Buried parts of tank need not be inspected</p> <p>TSDs: The inspection plans must be incorporated into the overall facility inspection plan as per 265.15.</p>						
CC-T11	265.1085(k)	Repair requirements	NA	NI	OK	DF
<p>Owner/operator shall make first efforts at repair of each defect detected during an inspection no later than 5 calendar days after detection; repairs shall be completed as soon as possible but no later than 45 calendar days after detection, except as provided in 265.1085(k)(2).</p>						
CC-T12	265.1090(b)	Recordkeeping requirements	NA	NI	OK	DF
<p>For each unit in service records must be maintained on-site including: unique unit ID number, dimensions and capacity, organic vapor pressure of waste (if tested, records include time and date of samples, analytical method, and results), and inspection and repair records for three years. Please list in detail below deficiencies noted regarding items CC-T6 through CC-T12:</p>						
CC-T13	265.1085(c)(2)	Level 2 Controls for Fixed-Roof Tanks Vented to Control Device	NA=Not Applicable OK= In Compliance	NI=Not Inspected DF= Deficiency		
<p>All requirements of CC-T7 and: Each roof opening not equipped with a closure device shall be connected to a closed system that is vented to a control device which removes or destroys organics in the vent stream, and which shall be operating whenever hazardous waste is in the tank.</p>						
CC-T14	265.1085(j)	Waste transfer requirements	NA	NI	OK	DF
<p>All requirements of CC-T8.</p>						
CC-T15	265.1085(g)	Operating requirements	NA	NI	OK	DF
<p>All requirements of CC-T9 and: Closed vent system and control device shall be installed and operated in accordance with 265.1088.</p>						
CC-T16	265.1085(g)(3)	Inspection requirements	NA	NI	OK	DF
<p>All requirements of CC-T10 and: perform initial leak detection testing of closed vent system on or before date tank is subject to the rule, as per 265.1088(b)(4); annually inspect closed vent system components per 265.1033(k) and 265.1034(b); negative pressure systems per 265.1033(j)(2).</p>						
CC-T17	265.1085(k)	Repair requirements	NA	NI	OK	DF
<p>All requirements of CC-T11.</p>						
CC-T18	265.1090(e)	Recordkeeping requirements	NA	NI	OK	DF
<p>All requirements of CC-T12 and: maintain records of unexpected malfunctions and semiannual updates of planned maintenance operations for 3 years; also: If control device is not a carbon absorber, condenser, flare, process heater, boiler or thermal vapor incinerator, maintain records of proper operation and use (e.g., manufacturer's documentation). Please list in detail below deficiencies regarding items CC-T13 through CC-T18:</p>						



## Waste, Pesticides and Toxics Division

Type of Document: ☐ Notice of Violation and Inspection Report/Checklist  
☒ No Violation Letter and Inspection Report/Checklist  
☐ Letter of Acknowledgment  
☐ Information Request

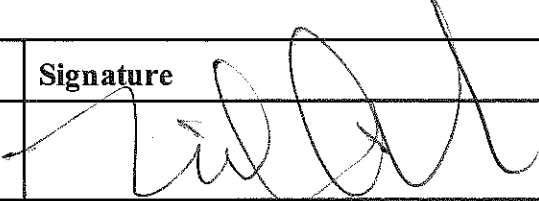
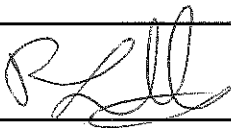
Facility Name: Dow Chemical

Facility Location: 925 County Road 1A

City: Ironton State: Ohio

U.S. EPA ID# OH0 039 128 913

Assigned Staff Michael Cunningham Phone: 614 464

Name	Signature	Date
Author		8-30-04
Regional Counsel		
Section Chief		8/31/2/04

### Directions/Request for Clerical Support:

After the Section Chief signs this sheet and original letter:

1. Date stamp the cover letter;
2. Make four copies of the contents of this folder:
  - One copy for the assigned staff;
  - One copy for the section file;
  - One copy for the branch file; and
  - One copy for the official file copy.
3. Make any additional copies for cc's or bcc's.
4. Mail the original certified mail and distribute office copies and cc's and bcc's.

Once the certified mail receipt is returned:

5. File the certified mail receipt (green card), with this sign-off sheet and the official file copy, and take to 7<sup>th</sup> floor RCRA file room;
6. E-mail staff the date that the letter was received by facility.

1565 5625



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

**OCT 25 2002**

DE-9J

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Gale M. Bradley  
The Dow Chemical Company  
925 County Road 1A  
Ironton, Ohio 45638

RE: RCRA Compliance Evaluation Inspection  
Dow Chemical Company  
OHD 039 128 913

On September 17, 2002, the United States Environmental Protection Agency (U.S. EPA) inspected your installation located at 925 County Road 1A, Ironton, Ohio. The purpose of the inspection was to evaluate compliance with certain requirements of the Resource Conservation and Recovery Act (RCRA); specifically, those regulations related to the generation, treatment and storage of hazardous waste.

The U.S. EPA evaluated the facility's compliance with the regulations for Boilers and Industrial Furnaces, 40 CFR Part 266, Subpart H and 40 CFR Part 264/265 Subparts BB and CC. As of this writing, based upon information available to U.S. EPA, our review of the inspection has not resulted in the detection of violations of these regulations. This determination does not limit the applicability of the requirements evaluated, other RCRA regulations, or regulations under other environmental statutes. U.S. EPA will continue to evaluate your facility in the future.

If you have any questions regarding this letter, please contact Allan Batka or my staff at (312) 353-7316.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Paul Little".

Paul Little, Chief  
Compliance Section #2  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division

cc: John Rochotte, OEPA-Southeast District Office

**ENFORCEMENT AND COMPLIANCE ASSURANCE BRANCH**

SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY
AUTHOR/ TYPIST	COMPLIANCE SECTION 1	COMPLIANCE SECTION 2	CORRECTIVE ACTION SECTION	ECAB BRANCH CHIEF	WPTD DIVISION DIRECTOR
AB 10/24/02		R 10-24-02			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

10/23/02

REPLY TO THE ATTENTION OF:

DE-9J

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Gale M. Bradley  
The Dow Chemical Company  
925 County Road 1A  
Ironton, Ohio 45638

RE: RCRA Compliance Evaluation Inspection  
Dow Chemical Company  
OHD 039 128 913

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If you have any questions regarding this letter, please contact Allan Batka or my staff at (312) 353-7316.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Paul Little".

Paul Little, Chief  
Compliance Section #2  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division

cc: John Rochotte, OEPA-Southeast District Office

**ENFORCEMENT AND COMPLIANCE ASSURANCE BRANCH**

SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY
AUTHOR/ TYPIST	COMPLIANCE SECTION 1	COMPLIANCE SECTION 2	CORRECTIVE ACTION SECTION	ECAB BRANCH CHIEF	WPTD DIVISION DIRECTOR
AB 10/24/02		10-24-02			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

DE-9J

AUG 30 2000

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. Troy DeHoff  
The Dow Chemical Company  
Hanging Rock Plant  
925 County Road 1A  
Ironton, Ohio 45638

Re: Compliance Evaluation Inspection  
EPA I.D. No.: OHD 039 128 913

Dear Mr. DeHoff:

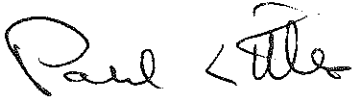
On July 31, 2000, a representative of the United States Environmental Protection Agency (U.S. EPA) inspected The Dow Chemical Company, Hanging Rock Plant located in Ironton, Ohio (the facility). The purpose of the inspection was to evaluate the facility's compliance with the Standards for Hazardous Waste Burned in Boilers and Industrial Furnaces set forth at 40 CFR Part 266 Subpart H, the Air Emission Standards for Equipment Leaks set forth at 40 CFR Part 265 Subpart BB and the Air Emission Standards for Tanks, Surface Impoundments, and Containers set forth at 40 CFR Part 265 Subpart CC. Enclosed please find a copy of our inspection report dated August 17, 2000.

As of this writing, based upon information available to U.S. EPA, our review of the inspection has not resulted in the detection of violations of any of the specific RCRA requirements under evaluation. This determination does not limit the applicability of the requirements evaluated, other RCRA regulations, or regulations under other environmental statutes. U.S. EPA and the Ohio Environmental Protection Agency will continue to evaluate your facility in the future.



If you have any questions or concerns regarding this matter, please contact Julianne Socha, of my staff, at 312-886-4436.

Sincerely,

A handwritten signature in black ink that reads "Paul Little". The signature is written in a cursive style with a large initial "P" and a stylized "L".

Paul Little, Chief  
Compliance Section 2  
Enforcement and Compliance Assurance Branch

Enclosure

cc: John Rochotte, OEPA-SEDO

bcc: official file  
section file  
author's copy

f:\user\jsocha\dowhr\complr2000

**ENFORCEMENT AND COMPLIANCE ASSURANCE BRANCH**

SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY
AUTHOR/ TYPIST	COMPLIANCE SECTION 1 SECTION CHIEF	COMPLIANCE SECTION 2 SECTION CHIEF	CA SECTION SECTION CHIEF	ECAB BRANCH CHIEF	WPTD DIVISION DIRECTOR
<i>See 082000</i>	X	<i>8-30-2000</i>	X	X	X

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5

Date: August 17, 2000

Subject: Compliance Evaluation Inspection  
Dow Chemical Company  
Hanging Rock Plant  
OHD 039 128 913

From: Julianne Socha, Environmental Engineer  
Compliance Section 2  
RCRA Enforcement and Compliance Assurance Branch

To: Official File

On July 31, 2000, U.S. EPA conducted an inspection at The Dow Chemical Company (Dow). The purpose of the inspection was to obtain information necessary to determine Dow's compliance with the BIF Rule and Subparts BB and CC. A representative of the Ohio EPA participated in the inspection.

The following summarizes discussions held, observations made and documents reviewed during the inspection.

INSPECTION REPORT

I. FACILITY INFORMATION

Location

The Dow Chemical Company  
Hanging Rock Plant  
925 County Road 1A  
Ironton, Ohio 45638

U.S. EPA Identification Number

OHD 039 128 913

## II. DATE OF INSPECTION

August 6, 1998

## DATE OF LAST U.S. EPA INSPECTION

July 21, 1999

## III. PARTICIPANTS

U.S. Environmental Protection Agency  
Julianne Socha, Environmental Engineer

Ohio Environmental Protection Agency  
John Rochotte, District Representative

Dow Chemical Company  
Troy DeHoff  
Lou Cloran

## IV. SUMMARY OF INSPECTION

### A. Background

Dow operates two BIF units, R-1 and R-3. A liquid hazardous waste (D001 and occasionally D018) from Dow's polystyrene and ABS manufacturing plants is burned in both BIF units. Natural gas is the primary fuel for both BIF units. Additionally, each BIF is capable of burning vent gases from the process storage tanks and equipment. The BIF units are identical units, both rated at  $90 \times 10^6$  Btu/hr input. Neither unit is equipped with air pollution control equipment. An overall schematic of the BIF units and the associated process is included in this inspection report as Attachment 1. This schematic was obtained from Dow's January 1999 Recertification of Compliance (RCOC).

In January 1999, Dow submitted its RCOC. Dow has established limits of operations under the adjusted Tier 1 mechanism. Dow also operates both units under the low risk waste exemption set forth at 40 CFR 266.109. A copy of Dow's CC-5 form from its January 1999 RCOC is included as Attachment 2 in this inspection report.

Dow Chemical Company  
OHD 039 128 913  
July 31, 2000 Compliance Evaluation Inspection  
August 17, 2000 Inspection Report

Dow has one hazardous waste storage tank, R-35, located in the vicinity of the BIF units. This tank is subject to Subpart CC and is considered a level 1 tank. R-35 has a fixed roof with a vent recovery system. When the BIF units are down the vapors are routed to a carbon canister. In addition to R-35 being subject to Subpart CC, Dow operates a <90 day container storage area which is subject to Subpart CC. The containers are considered level 1 containers.

B. Walk-Through

Mr. DeHoff and I went on the walk-through of the BIF operations during the inspection. Before my arrival, John Rochotte conducted a general RCRA walk-through of the facility. During the walk-through of the BIF operations, I observed the BIF units, R-35 hazardous waste storage tank and the control room. During the inspection only R-1 was burning hazardous waste. A printout from the control room of the operations during the inspection was obtained. This printout is included in this inspection report as Attachment 3.

Dow operates one hazardous waste storage tank, R-35. During the inspection the tank and its associated pump and equipment was observed. No visible leaks, cracks, gaps or deterioration from or in/or the tank and associated equipment were observed. R-35 is an insulated tank. The vapors from the tank and the closed vent system are vented to the BIF units. When the BIF units are not operational the vapors are vented to a carbon canister. The carbon canister is routinely changed annually. Dow tracks the minutes of operation of the carbon canister to determine if the canister is near breakthrough prior to the routine annual change out. Calgon picks up used canisters.

During the walk-through of the BIF units and R-35 areas tags on various pieces of equipment were noticed. Mr. DeHoff stated that the facility is in the process of retagging all the equipment in the plant. In May 2000, Dow began using Environmental Analytics for all its Method 21 monitoring, monthly and annual. Prior to May 2000 Environmental Analytics conducted the annual monitoring at Dow.

The <90 day container storage area was not inspected by U.S. EPA during the walk-through. John Rochotte inspected the <90 day storage during his walk-through of the facility before my arrival. I asked John Rochotte if he observed any open or unsealed containers, if he observed any leaks or spills, or any other problems during his walk-through. He stated that he did not observe any such problems during his walk-through. John also stated that there were approximately 20 drums in the storage area during this walk-through.

## C. Records Review

### 1. BIF Records

Dow stores all the BIF operating and emissions records electronically. Additionally, the records are backed up on microfiche. Dow maintains two files of BIF records, the alarm and data files. The alarm file contains all the AWFCO events. These AWFCO events include AWFCO weekly tests and actual cutoffs. The alarm file was reviewed from January 1, 2000 through July 18, 2000. AWFCO events for both R-1 and R-3. The data file contains all the minute data for instantaneous corrected CO, hra corrected CO, O<sub>2</sub>, block valve for hazardous waste flow (0=closed and 1=open), 1-minute average hazardous waste feed, hra hazardous waste feed, 1-minute average gas flow, and hra gas flow. The data file was reviewed for both R-1 and R-3 from January 1, 2000 through July 18, 2000. No exceedances of the limits established in the January 1999 RCOC were observed. AWFCO events did occur however, the CO and hazardous waste feed were below the RCOC limits at the time of the cutoffs. Dow has established trip values for an AWFCO at 65 ppm for hra CO and 170 lb/hr for hra hazardous waste feed.

Dow conducts weekly tests of its AWFCO system. These weekly tests are usually conducted on Tuesdays. Dow has six cut-off trips -- high waste feed, high CO, CEM system general failure, high heater firing rate, data collection system down, and low combustion chamber temperature. All the computer signals for the six trips are tested weekly. Additionally, the six trips are rotated on a weekly basis to trigger an AWFCO.

Daily CEM calibration logs were reviewed for R-3 from January 1, 2000 through June 30, 2000. The plant operators do the daily calibrations. No problems were noted with the calibration logs.

The daily inspection logs were reviewed from January 1, 2000 through June 30, 2000. The instantaneous hazardous waste feed rates were included on the inspection logs. The log also includes the carbon canister usage in minutes. As of June 30, 2000 the inspection log indicated that the canisters had been used as follows: Bed #1: 8739 minutes; Bed #2: 68 minutes; and Bed #3: 1973 minutes. All of the logs reviewed were complete. No logs were found missing for the time period reviewed.

### 2. Subpart BB and Subpart CC

Monthly Method 21 monitoring results were reviewed during the inspection from August 1999 through June 2000. The pumps and valves in the R-35 area are

monitored monthly. No RCRA leaks were observed. Calibration precision and response time logs were reviewed from August 1999 through June 2000. No problems were observed. Two leaks, as defined under the Clean Air Act, were identified during the June 28, 2000 monitoring. Tag # 00088956 and tag # 2894978 were found to be emitting 2000 ppm and 3000 ppm, respectively. These two tags are found on pieces of equipment located in the stryron tank farm.

## V. EXIT MEETING

Prior to leaving the facility I met with Mr. DeHoff and Mr. Cloran. I told them that I did not observe any problems during the walk-through of the facility or during my review of records.

## VI. ATTACHMENTS

Attachment 1 - process schematic  
Attachment 2 - January 1999 RCOC CC-5 forms  
Attachment 3 - control room printout

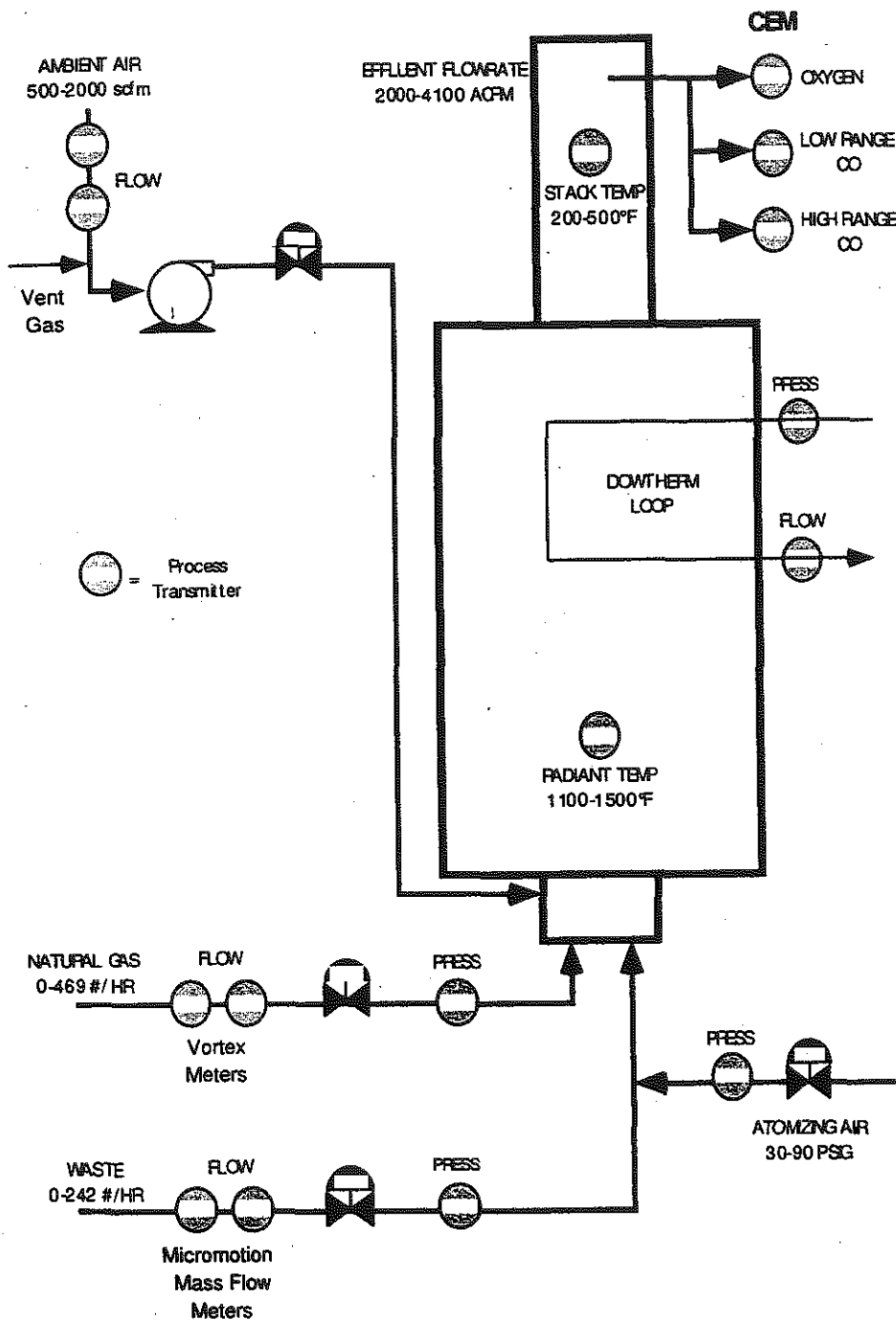
# ATTACHMENT 1

Dow Chemical Company  
Hanging Rock Plant  
OHD 039 128 913  
Inspection Date: July 31, 2000  
Report Date: August 17, 2000



Figure 2-1 Process Flow Diagram for BIF Units R-1 and R-3

**Hanging Rock STYRON® / MAGNUM® Plant**  
**DOWTHERM® Heaters R-1 & R-3**  
Process Flow Diagram



# ATTACHMENT 2

Dow Chemical Company  
Hanging Rock Plant  
OHD 039 128 913  
Inspection Date: July 31, 2000  
Report Date: August 17, 2000

Table 2-7  
**COMPLIANCE CERTIFICATION FORM 5 (CC-5)**  
**SUMMARY OF OPERATING AND FEED RATE LIMITS**

Unit #: R-1 Test Date: 27-Jan-99 Test No.: 1 (Runs 1-3)

2. Operating Condition Limits:	Notes	Units	Value
Max. PM Control Device Inlet Temp.	(a), (b)	° F	N/A
Max. Combustion Chamber Temp.	(a)	° F	
APCS Operating Conditions (List applicable parameters) [See 40 CFR 266.103(c)(1)(ix-xiii)]	BIF Unit R-1 has no APCS	N/A	N/A
Max. Production Rate	Design basis	Btu/hr	9.0E+06
Max. Total HW Feed Rate	Demonstrated	lb/hr	173.2
Max. Total Pumpable HW Feed Rate	(a)	g/hr	N/A
Max. Total Chlorine and Chloride Feed Rate	adj. Tier I	g/hr	222.1
Max. Total Ash Feed Rate	(c)	g/hr	N/A

3. Maximum Metals Feed Rates			Total Feed Streams (b)	Total HW Feed Streams	Total Pumpable HW Streams (a)
	Basis	Units			
Antimony	adj. Tier I	g/hr	166.7	166.7	N/A
Arsenic	adj. Tier I	g/hr	1.28	1.28	N/A
Barium	adj. Tier I	g/hr	27,792	27,792	N/A
Beryllium	adj. Tier I	g/hr	2.33	2.33	N/A
Cadmium	adj. Tier I	g/hr	3.11	3.11	N/A
Chromium	adj. Tier I	g/hr	0.46	0.46	N/A
Lead	adj. Tier I	g/hr	50	50	N/A
Mercury	adj. Tier I	g/hr	44.3	44.3	N/A
Silver	adj. Tier I	g/hr	1,667	1,667	N/A
Thallium	adj. Tier I	g/hr	277.9	277.9	N/A

4. CO, HC, and PM Limits	Notes	Units	Value
CO @ 7% O <sub>2</sub>	(d)	ppm v/v	100
THC as propane @ 7% O <sub>2</sub>	(e)	ppm v/v	N/A
PM @ 7% O <sub>2</sub>	(f)	gr/dscf	N/A

(a) Not applicable if complying with Tier I or adjusted Tier I metals feed rate screening limits.

(b) Not required for furnaces monitoring metals concentrations in collected PM.

(c) Not required for cement and light-weight aggregate kilns.

(d) Under Tier I, CO limit is 100 ppm v/v.

(e) Under Tier I for CO, THC limit is not applicable.

(f) 0.08 gr/dscf or existing permit, whichever is more stringent, except standard waived for units operating under LRWE.

# ATTACHMENT 3

Dow Chemical Company  
Hanging Rock Plant  
OHD 039 128 913  
Inspection Date: July 31, 2000  
Report Date: August 17, 2000



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

RECEIVED  
REGIONAL HEARING  
CLERK  
'96 SEP 27 P4:44

SEP 27 1996

REPLY TO THE ATTENTION OF:

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

US ENVIRONMENTAL  
PROTECTION AGENCY  
D-8J

Mr. Paul Bork  
The Dow Chemical Company  
Legal Department  
2030 Dow Center  
Midland, Michigan 48674  
Docket No.: V-W-001-95

Dear Mr. Bork:

I have enclosed one original of a fully executed Consent Agreement and Final Order (CAFO) in resolution of the above case. The other original was filed on September 27, 1996, with the Regional Hearing Clerk.

Within 30 calender days of the effective date of the enclosed CAFO, please pay the civil penalty in the manner prescribed in paragraphs 29 and 30 of the CAFO, and reference your check with the number BD 054296012.

Thank you for your cooperation in resolving this matter.

Sincerely,

Joseph M. Boyle, Chief  
Enforcement and Compliance Assurance Branch

Enclosure

cc: Regional Hearing Clerk/E-19J (w/CAFO)  
Honorable Jon G. Lotis, ALJ (w/CAFO)  
Jerome Kujawa, ORC (C-29A) (w/CAFO)  
Dorothy Price, Finance, MF-10J (w/CAFO)

RECEIVED  
REGIONAL HEARING  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5

IN THE MATTER OF:	)	DOCKET NO. VAW-001-95
	)	
THE DOW CHEMICAL COMPANY	)	CONSENT AGREEMENT AND
HANGING ROCK PLANT	)	FINAL ORDER
ROUTE 2, BOX 253	)	
IRONTON, OHIO 45638	)	
	)	
<u>EPA ID NO.: OHD 039 128 913</u>	)	

I. PREAMBLE

On October 31, 1994, a Complaint was filed in this matter pursuant to Section 3008(a) of the Resource Conservation and Recovery Act, as amended (RCRA), 42 U.S.C. Section 6928(a), and the United States Environmental Protection Agency's Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits, 40 CFR Part 22. The Complainant is the Chief, Enforcement and Compliance Assurance Branch, Waste, Pesticides and Toxics Division, United States Environmental Protection Agency (U.S. EPA), Region 5. The Respondent is The Dow Chemical Company.

II. STIPULATIONS

The parties, desiring to settle this action, enter into the following stipulations:

1. Respondent has been served with a copy of the original Complaint and Proposed Compliance Order (Docket No. V-W-001-95) in this matter. The Complaint is incorporated herein by reference.

2. Respondent is a Delaware corporation whose registered agent in Ohio is C.T. Corporation System, 815 Superior Avenue,

N.E., Cleveland, Ohio 44114. Respondent owns and operates a facility which includes two boilers, R-1 and R-3, located on Gilruth Lane, Old Route 52, in Ironton, Ohio (the "Facility").

3. Respondent admits that Complainant has jurisdiction to issue the Complaint in this matter and jurisdiction to enter into this Consent Agreement and Final Order (CAFO). Respondent agrees not to contest such jurisdiction in any proceeding to enforce the provisions of this CAFO.

4. Respondent neither admits nor denies the specific factual allegations contained in the Complaint other than admissions made in Respondent's Answer.

5. Respondent explicitly withdraws its request for a hearing and waives any and all rights under any provisions of law to a hearing on the allegations contained in the Complaint or to challenge the terms and conditions of this CAFO.

6. If Respondent fails to comply with any provision contained in this CAFO, Respondent waives any rights it may possess in law or equity to challenge the authority of the U.S. EPA to bring a civil action in the appropriate United States District Court to compel compliance with the CAFO and/or to seek an additional penalty for the noncompliance.

7. Respondent consents to the issuance of the Final Order hereinafter set forth and hereby agrees to pay a civil penalty and performance of a Supplemental Environmental Project (SEP) as described in the Statement of Work (SOW) attached to and incorporated herein. Pursuant to Sections 3008(a) and 3008(g) of RCRA, 42 U.S.C. §§ 6928(a) and 6928(g), the nature of the

violations, Respondent's agreement to perform a SEP and other relevant factors, EPA has determined that an appropriate civil penalty to settle this action is ONE HUNDRED FORTY-NINE THOUSAND, SIX HUNDRED THIRTY-NINE DOLLARS (\$149,639.00). Respondent agrees not to claim or attempt to claim a Federal income tax deduction or credit covering all or any part of the cash civil penalty paid to the U.S. Treasury.

8. Respondent hereby certifies that, as of the date of this CAFO: (a) Respondent is not required to perform or develop the SEP by any Federal, State or local law or regulation; (b) Respondent is not funding any aspect of the SEP with any funding provided by a Federal, State, or local grant; (c) except for this Order (Docket No. V-W-001-95), Respondent is not required to perform or develop the SEP in settlement of any Federal, State, or local enforcement action; and (d) Respondent has not received, and is not presently negotiating to receive, credit in any other enforcement action for the SEP.

9. Respondent shall give notice and a copy of this CAFO to any successor in interest prior to any transfer of ownership or operational control of the Facility. This CAFO is binding on Respondent and any successors in interest.

10. Nothing in this CAFO shall be construed to relieve Respondent from its obligation to comply with all applicable Federal, State and local statutes and regulations, including the RCRA Subtitle C requirements at 40 CFR Parts 260 through 270. Additionally, nothing in this CAFO shall be construed to



constitute U.S. EPA approval of the equipment or technology employed by Respondent in connection with the SEP under the terms of this CAFO.

11. This CAFO shall become effective on the date it is signed by the Director, Waste, Pesticides and Toxics Division.

### III. FINAL ORDER

Based on the foregoing stipulations, the Parties agree to the entry of the following Final Order:

12. Respondent shall, immediately upon the effective date of this CAFO, include the value of the feed rate of vapor gas in the vent header (generated from the process lines, raw material tank, and unreacted monomer tank fed to the boilers) when determining compliance with the operating limits specified in the Certification Of Compliance. Respondent shall calculate the feed rate of the vapor gas by determining a flow rate based on an engineering calculation of the worst case maximum flow rate of vapor gas possible multiplied by a worst case concentration of chloride and chlorine.

13. Respondent shall, immediately upon the effective date of this Order, monitor and record the flow rate of the liquid hazardous waste feedstreams fed to the boilers on an instantaneous or hourly rolling average basis pursuant to 40 CFR §266.103(c)(4)(iv).

14. Respondent shall, within fifteen (15) days of the effective date of this Order, submit to U.S. EPA a correct and

accurate Certification Of Compliance containing the non-extrapolated, applicable feed rate limits for boilers which burn hazardous waste based on the compliance test conducted in July of 1995, pursuant to 40 CFR §266.103(d).

15. Respondent shall undertake the SEP pursuant to the SOW and complete the SEP no later than the schedule set forth in the SOW. The parties agree that the SEP will provide environmental and public health benefits. As described in the SOW, the SEP consists of remediation of the Fire Water Pond at the Facility.

16. The total cost for the SEP shall not be less than ONE HUNDRED NINETEEN THOUSAND, TWO HUNDRED SIXTY-TWO DOLLARS (\$119,262.00). Respondent shall provide Complainant with documentation of the expenditures made in connection with the SEP within ten (10) days of completion of the SEP.

17. Respondent shall apply for and obtain all permits and approvals necessary for the implementation and completion of the SEP activities.

18. Whether Respondent has complied with the terms, conditions and schedule of the SOW shall be solely determined by U.S. EPA.

19. Respondent shall send a SEP Completion Report (SEP Report) to be received by U.S. EPA within thirty (30) calendar days of completion of the work required in the SOW. The SEP Report shall contain the following information:

- (a) A detailed description of the SEP as implemented;
- (b) A description of any operating problems

encountered and the solutions thereto and identification of any deviations from the SOW, an explanation of why the deviation occurred and what occurred in its place;

- (c) Itemized costs, documented by copies of purchase orders and receipts or canceled checks; and
- (d) Certification that the SEP has been fully implemented pursuant to the provisions of this CAFO.

20. Any public statement, oral or written, made by Respondent making reference to the SEP shall include the following language: "This project was undertaken in connection with the settlement of an enforcement action taken by the U.S. Environmental Protection Agency alleging violations of the Resource Conservation and Recovery Act, as amended."

21. Respondent shall allow U.S. EPA to inspect the Facility at any time in order to confirm that the SEP is being completed properly and in conformity with the representations made herein, and that all records pertaining to the SEP will be kept at the Facility and made available to U.S. EPA and Ohio Environmental Protection Agency upon request. U.S. EPA or OEPA may share this information with any other parties requesting such information.

22. Respondent shall maintain legible copies of documentation of the underlying research and data for any and all documents or reports submitted to U.S. EPA pursuant to this CAFO. Respondent shall provide the documentation of any such underlying

research and data to U.S. EPA within seven (7) days of a request for such information. In all documents or reports, including, without limitation, the SEP Report, submitted to U.S. EPA pursuant to this CAFO, Respondent shall, by a responsible corporate official, sign and certify under penalty of law that the information contained in such document or report is true, accurate, and not misleading by signing the following statement:

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

23. (a) In the event that Respondent fails to comply with any of the terms or provisions of this CAFO relating to the performance of the SEP described in paragraphs 15 through 22 above and/or to the extent that the actual costs for the SEP do not equal or exceed the cost of the SEP described in paragraph 16 above, Respondent shall be liable for stipulated penalties according to the provisions set forth below:

(i) Except as provided in subparagraph (ii) immediately below, for a SEP which has not been completed satisfactorily pursuant to paragraph 15 above, Respondent shall pay a stipulated penalty to the United States in the amount of THIRTY-SIX THOUSAND DOLLARS (\$36,000.00).

(ii) If the SEP is not completed satisfactorily, but Respondent : (1) made good faith and timely efforts to

complete the project; and (2) certifies, with supporting documentation, that at least ninety percent (90%) of the amount of money which was required to be spent was spent on the SEP, Respondent shall not pay any stipulated penalty.

(iii) If the SEP is satisfactorily completed, but Respondent spent less than ninety percent (90%) of the amount of money required to be spent for the project, Respondent shall pay a stipulated penalty to the United States in the amount of NINE THOUSAND DOLLARS (\$9,000.00).

(iv) If the SEP is satisfactorily completed, and Respondent spent at least ninety percent (90%) of the amount of money required to be spent for the project, Respondent shall not pay any stipulated penalty.

(v) For failure to send to U.S. EPA the SEP Completion Report required by paragraph 19 above, Respondent shall pay a stipulated penalty in the amount of FIVE THOUSAND DOLLARS (\$5,000.00) for each calendar day after the due date until the report is received by U.S. EPA.

(b) The determinations of whether the SEP has been satisfactorily completed and whether Respondent has made a good faith, timely effort to implement the SEP shall be in the sole discretion of U.S. EPA.

(c) Respondent shall pay stipulated penalties within fifteen (15) calendar days of receipt of written demand by U.S. EPA for such penalties. Method of payment shall be in accordance with the provisions of paragraph 29 herein. Interest and late

charges shall be paid as stated in paragraph 30 herein.

24. Nothing in this CAFO shall be construed as prohibiting, altering or in any way limiting the ability of U.S. EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this agreement or of the statutes and regulations upon which this agreement is based, or for Respondent's violation of any applicable provision of law.

25. This CAFO shall not relieve Respondent of its obligation to comply with all applicable provisions of Federal, State or local law, nor shall it be construed to be a ruling on, or determination of, any issue related to any Federal, State or local permit.

26. (a) If any event occurs which causes or may cause delays in the completion of the SEP as required under this CAFO, Respondent shall notify Complainant in writing within ten (10) calendar days of the delay or Respondent's knowledge of the anticipated delay, whichever is earlier. The notice shall describe in detail the anticipated length of the delay, the precise cause or causes of the delay, the measures taken and to be taken by Respondent to prevent or minimize the delay, and the timetable by which those measures will be implemented. Respondent shall adopt all reasonable measures to avoid or minimize any such delay. Failure by Respondent to comply with the notice requirements of this paragraph shall render this paragraph void and of no effect as to the particular incident involved and constitute a waiver of Respondent's right to request

an extension of its obligation under this CAFO based on such incident.

(b) If the parties agree that the delay or anticipated delay in compliance with this CAFO has been or will be caused by circumstances entirely beyond the control of Respondent, the time for performance hereunder may be extended for a period no longer than the delay resulting from such circumstances. In such event, the parties shall stipulate in writing to such extension of time.

(c) In the event that the U.S. EPA does not agree that the delay in achieving compliance with the requirements of this CAFO has been or will be caused by circumstances beyond the control of Respondent, U.S. EPA will notify Respondent in writing of its decision and any delays in the completion of the SEP shall not be excused.

(d) The burden of proving that any delay is caused by circumstances entirely beyond the control of Respondent shall rest with Respondent. Increased costs or expenses associated with the implementation of actions called for by this CAFO shall not, in any event, be a basis for changes in this CAFO or extensions of time under section (b) of this paragraph. Delay in achievement of one interim step shall not necessarily justify or excuse delay in achievement of subsequent steps.

27. Whenever, under the terms of this CAFO, notice is required to be given or a document sent by one Party to another, it shall be directed to the individuals at the addresses specified below:

As to U.S. EPA:

Michael Cunningham  
Enforcement & Compliance Assurance Branch (DRE-8J)  
United States Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, Illinois 60604

As to Respondent:

Terry S. Cox, Environmental Manager  
The Dow Chemical Company  
Midland, Michigan 48674

28. Respondent shall also submit a copy of all documents and correspondence regarding this CAFO to Jerome Kujawa, Office of Regional Counsel (C-29A), United States Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604 and to Michael Savage, Ohio Environmental Protection Agency, Division of Hazardous Waste Management, 1800 WaterMark Drive, P.O. Box 1049, Columbus, Ohio 43215-1099.

29. Respondent shall pay a civil penalty in the amount of ONE HUNDRED FORTY-NINE THOUSAND, SIX HUNDRED THIRTY-NINE DOLLARS (\$149,639.00) within thirty (30) calendar days of the effective date of this CAFO. Payment shall be made by check payable to the "Treasurer of the United States of America". The check shall be mailed to U.S. EPA, Region 5, Regional Finance Office, P.O. Box 70753, Chicago, Illinois 60673. The name of the Respondent, the proceeding's Docket Number V-W-001-95, and the billing document number shall be clearly marked on the face of the check. Copies of the transmittal of the payment shall be sent to: the Regional Hearing Clerk, Resource Management Division (M-19J); Jerome Kujawa, Office of Regional Counsel (C-29A), and Michael



Cunningham, Enforcement and Compliance Assurance Branch (DRE-8J); at U.S. EPA, 77 West Jackson Boulevard, Chicago, Illinois 60604-3590.

30. Pursuant to 31 U.S.C. Section 3717, Respondent shall pay the following amounts on any amount overdue under this CAFO:

(a) **Interest.** Any unpaid portion of a civil or stipulated penalty shall bear interest at the rate established by the Secretary of the Treasury pursuant to 31 U.S.C. Section 3717(a)(1). Interest will therefore begin to accrue on a civil or stipulated penalty if it is not paid by the last date required. Interest will be assessed at the rate of the United States Treasury tax and loan rate in accordance with 4 CFR § 102.13(c).

(b) **Monthly Handling Charge.** Respondent shall pay a late payment handling charge of TWENTY DOLLARS (\$20.00) on any late payment, with an additional charge of TEN DOLLARS (\$10.00) for each subsequent thirty (30) calendar day period over which an unpaid balance remains.

(c) **Non-Payment Penalty.** On any portion of a civil or stipulated penalty more than ninety (90) calendar days past due, Respondent shall pay a non-payment penalty of six percent (6%) per annum, which will accrue from the date the penalty payment became due and is not paid. This non-payment is in addition to charges which accrue or may accrue under subparagraphs (a) and (b) immediately above.

31. Except as set forth in the stipulated penalties

relating to performance of the SEP, failure to comply with any requirement of this CAFO may subject Respondent to liability for a penalty of up to TWENTY-FIVE THOUSAND DOLLARS (\$25,000.00) for each day of continued non-compliance with the terms of the CAFO. U.S. EPA is authorized to assess such penalties pursuant to RCRA Section 3008(c).

32. This CAFO and the attached SOW constitute the entire settlement between the parties, and constitute final disposition of the Complaint filed in this case and stipulations hereinbefore recited.

33. Each party shall bear its own costs and attorneys' fees in the action resolved by this CAFO.

34. Respondent's obligations under this CAFO shall end when it has satisfied all of the requirements of this CAFO.

35. Respondent waives any right it may have pursuant to 40 CFR 22.08 to be present during discussions with, or to be served with and reply to, any memorandum or communication addressed to the Director, Waste, Pesticides and Toxics Division, or his superiors, where the purpose of such discussion, memorandum or communication is to persuade such an official to accept and issue the CAFO.

36. The information required to be maintained or submitted pursuant to this CAFO is not subject to the Paperwork Reduction Act of 1980, 44 U.S.C. §§ 3501 et seq.

37. Notwithstanding any other provision of this CAFO, U.S. EPA expressly reserves any and all rights to bring an enforcement

action pursuant to Section 7003 of RCRA, 42 U.S.C. Section 6973, or other statutory authority should U.S. EPA find that the handling, storage, treatment, transportation, or disposal of solid waste or hazardous waste at the Facility may present an imminent and substantial endangerment to human health or the environment. U.S. EPA also expressly reserves the right: (a) for any matters other than violations alleged in Complaint, to take any action authorized under Section 3008 of RCRA; (b) to enforce compliance with the applicable provision of the Ohio Administrative Code; (c) to take any action under 40 CFR Parts 124 and 270; and (d) to enforce compliance with this CAFO.

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Proceed to page 15.

IV. SIGNATORIES

Each undersigned representative of a Party to this CAFO consisting of fifteen (15) pages certifies that he is fully authorized to enter into the terms and conditions of this CAFO and to legally bind such party to this document.

Agreed to this 23 day of September, 1996.

By David E. Schaffer DS

David E. Schaffer  
Hanging Rock Site Manager

For The Dow Chemical Company,  
Respondent

Agreed this 27<sup>th</sup> day of September, 1996.

By Joseph M. Boyle

Joseph M. Boyle, Chief  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division  
U.S. Environmental Protection Agency, Region 5,  
Complainant

The above agreed and consented to, it is so ordered

this 27<sup>th</sup> day of September, 1996.

By Norman R. Niedergang

Norman R. Niedergang, Director  
Waste, Pesticides and Toxics Division  
U.S. Environmental Protection Agency, Region 5

IN THE MATTER OF:  
THE DOW CHEMICAL COMPANY  
HANGING ROCK PLANT  
ROUTE 2, BOX 253  
IRONTON, OHIO  
DOCKET No. V-W-001-95

CERTIFICATE OF SERVICE

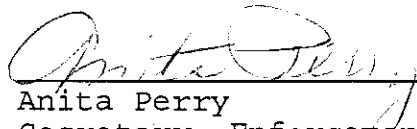
I hereby certify that I caused to be served a copy of the foregoing Complainant's Notice of Settlement and Consent Agreement and Final Order upon each person designated below, on the 27th date of September, 1996, by causing said copies to be deposited in the U.S. EPA Pouch Mail to the Honorable Carl C. Charneski, and U.S. Mail, First Class and certified-return receipt requested, postage prepaid to Mr. Paul Bork, at Chicago, Illinois, in envelopes addressed to:

Honorable Carl C. Charneski  
Administrative Law Judge  
U.S. EPA  
410 M Street, S.W. (1900)  
Washington, D.C. 20460

Paul Bork  
Legal Department  
The Dow Chemical Company  
2030 W H Dow Center  
Midland, Michigan 48674

I have further caused the original of the Complainant's Notice of Settlement, the Consent Agreement and Final Order, and Certificate of Service to be served in the Office of the Regional Hearing Clerk located in the Planning and Management Division, U.S. EPA, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, on September 27, 1996.

Dated this 27th day of September, 1996.

  
Anita Perry  
Secretary, Enforcement & Compliance  
Assurance Branch,  
U.S. Environmental Protection Agency

Name Michael Curingham  
Phone (312) 886-4464  
Date 09/27/96

1. OECA DOCKET System # \_\_\_\_\_  
2. Court Docket/Regional Hearing Clerk Administrative Docket # V-W-001-95  
3. Case name The Dow Chemical Hanging Rock Plant  
Information for one Facility: (If more facilities, attach additional pages.)  
4.(a) EPA-FINDS facility identification # \_\_\_\_\_  
(b) EPA Program ID # for the facility 0HD 039128913  
5. Facility Name The Dow Chemical Company Hanging Rock Plant  
6. Facility Address: Street: Route 52 City: Trenton St: 0H Zip: 45638  
7.(a) Primary 4-digit SIC-code 3086 (b) Other 4-digit SIC-codes \_\_\_\_\_  
8. Dun & Bradstreet # (if applicable) 004294278  
9.(a) EPA Lead Attorney Jerome Kujanica  
(b) EPA Program Contact Michael Cunningham  
10. Statute(s) and Section(s) violated (Not authorizing section nor CFR) RCRA/3008  
\_\_\_\_\_  
11. Action Type  
☒ (a) Consent decree or court order resolving a civil judicial action  
☒ (b) Administrative Penalty Order (with/without injunctive relief)  
☐ (c) Superfund administrative cost recovery agreement  
☐ (d) Federal facility compliance agreement (not incl. RCRA matters)  
☐ (e) Field citation  
☐ (f) Administrative Compliance Orders

12. Administrative action date: Issued/Filed 10/31/94 Final Order 9/27/96

13. Authorizing section for administrative actions RCRA/6928

14. Was this a multi-media action? Yes ☐ No ☒

Check all that apply/make this action multi-media: ☐ inspection ☐ complaint ☐ settlement ☐ SEP

15. Was this action a part of a community-based/geographic initiative?      Yes ✓ No

17. Was Alternative Dispute Resolution used in this action? Yes ☐ No ☒

17. Was Alternative Dispute Resolution used in this action:        Yes        No

18. What action did violator accomplish prior to receipt of settlement/order or will take to return to compliance or meet addl. requirements? This may be due to settlement/order requirements or otherwise required by statute or regulation (e.g. actions related to an APO which did not specify compliance requirements). Where separate penalty and/or compliance orders are issued in connection w/same violations(s), report the following information for only one of those orders. Select response(s) from the following:

Use Reduction	—	Testing	—
Industrial Process Change	—	Auditing	—
Emissions/Discharge Change(install/modify controls)	—	Monitoring/Sampling	—
Storage/Disposal Change	—	Recordkeeping	✓
Remediation	—	Labeling/Manifesting	—
Restoration	—	Reporting	—
Removal	—	Information Letter Response	—
RD/RA	—	Permit Application	—
		Training	—
		Provide Site Access	—
		Site Assessment	—
		R/FS	—

### No Action (Penalty Only)

**Other (please describe)** \_\_\_\_\_

19. Cost of actions described in item #18. (Actual cost data supplied by violator is preferred figure.)

Physical actions: S ☒ Non-physical actions: S ☐

(Left column)	(Right column)
1. <i>Staphylococcus aureus</i>	2. <i>Escherichia coli</i>
3. <i>Streptococcus pneumoniae</i>	4. <i>Salmonella typhi</i>
5. <i>Mycobacterium tuberculosis</i>	6. <i>Candida albicans</i>
7. <i>Aspergillus niger</i>	8. <i>Penicillium chrysogenum</i>
9. <i>Trichoderma reesei</i>	10. <i>Geotrichum candidum</i>
11. <i>Fusarium oxysporum</i>	12. <i>Botrytis cinerea</i>
13. <i>Claviceps purpurea</i>	14. <i>Monascus purpureus</i>
15. <i>Lactobacillus acidophilus</i>	16. <i>Bifidobacterium lactis</i>
17. <i>Streptococcus thermophilus</i>	18. <i>Yeast (Saccharomyces cerevisiae)</i>
19. <i>Aspergillus oryzae</i>	20. <i>Koji (Aspergillus spp.)</i>
21. <i>Mould (Fusarium spp.)</i>	22. <i>Penicillin (Penicillium spp.)</i>
23. <i>Streptokinase (Streptococcus spp.)</i>	24. <i>Insulin (Pancreas)</i>
25. <i>Antibiotics (Various sources)</i>	26. <i>Vaccines (Various sources)</i>
27. <i>Enzymes (Various sources)</i>	28. <i>Proteins (Various sources)</i>
29. <i>Antibodies (Various sources)</i>	30. <i>Antigens (Various sources)</i>
31. <i>Antigens (Various sources)</i>	32. <i>Antibodies (Various sources)</i>
33. <i>Antibiotics (Various sources)</i>	34. <i>Enzymes (Various sources)</i>
35. <i>Proteins (Various sources)</i>	36. <i>Vaccines (Various sources)</i>
37. <i>Antigens (Various sources)</i>	38. <i>Antibodies (Various sources)</i>
39. <i>Antibiotics (Various sources)</i>	40. <i>Enzymes (Various sources)</i>
41. <i>Proteins (Various sources)</i>	42. <i>Vaccines (Various sources)</i>
43. <i>Antigens (Various sources)</i>	44. <i>Antibodies (Various sources)</i>
45. <i>Antibiotics (Various sources)</i>	46. <i>Enzymes (Various sources)</i>
47. <i>Proteins (Various sources)</i>	48. <i>Vaccines (Various sources)</i>
49. <i>Antigens (Various sources)</i>	50. <i>Antibodies (Various sources)</i>
51. <i>Antibiotics (Various sources)</i>	52. <i>Enzymes (Various sources)</i>
53. <i>Proteins (Various sources)</i>	54. <i>Vaccines (Various sources)</i>
55. <i>Antigens (Various sources)</i>	56. <i>Antibodies (Various sources)</i>
57. <i>Antibiotics (Various sources)</i>	58. <i>Enzymes (Various sources)</i>
59. <i>Proteins (Various sources)</i>	60. <i>Vaccines (Various sources)</i>
61. <i>Antigens (Various sources)</i>	62. <i>Antibodies (Various sources)</i>
63. <i>Antibiotics (Various sources)</i>	64. <i>Enzymes (Various sources)</i>
65. <i>Proteins (Various sources)</i>	66. <i>Vaccines (Various sources)</i>
67. <i>Antigens (Various sources)</i>	68. <i>Antibodies (Various sources)</i>
69. <i>Antibiotics (Various sources)</i>	70. <i>Enzymes (Various sources)</i>
71. <i>Proteins (Various sources)</i>	72. <i>Vaccines (Various sources)</i>
73. <i>Antigens (Various sources)</i>	74. <i>Antibodies (Various sources)</i>
75. <i>Antibiotics (Various sources)</i>	76. <i>Enzymes (Various sources)</i>
77. <i>Proteins (Various sources)</i>	78. <i>Vaccines (Various sources)</i>
79. <i>Antigens (Various sources)</i>	80. <i>Antibodies (Various sources)</i>
81. <i>Antibiotics (Various sources)</i>	82. <i>Enzymes (Various sources)</i>
83. <i>Proteins (Various sources)</i>	84. <i>Vaccines (Various sources)</i>
85. <i>Antigens (Various sources)</i>	86. <i>Antibodies (Various sources)</i>
87. <i>Antibiotics (Various sources)</i>	88. <i>Enzymes (Various sources)</i>
89. <i>Proteins (Various sources)</i>	90. <i>Vaccines (Various sources)</i>
91. <i>Antigens (Various sources)</i>	92. <i>Antibodies (Various sources)</i>
93. <i>Antibiotics (Various sources)</i>	94. <i>Enzymes (Various sources)</i>
95. <i>Proteins (Various sources)</i>	96. <i>Vaccines (Various sources)</i>
97. <i>Antigens (Various sources)</i>	98. <i>Antibodies (Various sources)</i>
99. <i>Antibiotics (Various sources)</i>	100. <i>Enzymes (Various sources)</i>
101. <i>Proteins (Various sources)</i>	102. <i>Vaccines (Various sources)</i>
103. <i>Antigens (Various sources)</i>	104. <i>Antibodies (Various sources)</i>
105. <i>Antibiotics (Various sources)</i>	106. <i>Enzymes (Various sources)</i>
107. <i>Proteins (Various sources)</i>	108. <i>Vaccines (Various sources)</i>
109. <i>Antigens (Various sources)</i>	110. <i>Antibodies (Various sources)</i>
111. <i>Antibiotics (Various sources)</i>	112. <i>Enzymes (Various sources)</i>
113. <i>Proteins (Various sources)</i>	114. <i>Vaccines (Various sources)</i>
115. <i>Antigens (Various sources)</i>	116. <i>Antibodies (Various sources)</i>
117. <i>Antibiotics (Various sources)</i>	118. <i>Enzymes (Various sources)</i>
119. <i>Proteins (Various sources)</i>	120. <i>Vaccines (Various sources)</i>
121. <i>Antigens (Various sources)</i>	122. <i>Antibodies (Various sources)</i>
123. <i>Antibiotics (Various sources)</i>	124. <i>Enzymes (Various sources)</i>
125. <i>Proteins (Various sources)</i>	126. <i>Vaccines (Various sources)</i>
127. <i>Antigens (Various sources)</i>	128. <i>Antibodies (Various sources)</i>
129. <i>Antibiotics (Various sources)</i>	130. <i>Enzymes (Various sources)</i>
131. <i>Proteins (Various sources)</i>	132. <i>Vaccines (Various sources)</i>
133. <i>Antigens (Various sources)</i>	134. <i>Antibodies (Various sources)</i>
135. <i>Antibiotics (Various sources)</i>	136. <i>Enzymes (Various sources)</i>
137. <i>Proteins (Various sources)</i>	138. <i>Vaccines (Various sources)</i>
139. <i>Antigens (Various sources)</i>	140. <i>Antibodies (Various sources)</i>
141. <i>Antibiotics (Various sources)</i>	142. <i>Enzymes (Various sources)</i>
143. <i>Proteins (Various sources)</i>	144. <i>Vaccines (Various sources)</i>
145. <i>Antigens (Various sources)</i>	146. <i>Antibodies (Various sources)</i>
147. <i>Antibiotics (Various sources)</i>	148. <i>Enzymes (Various sources)</i>
149. <i>Proteins (Various sources)</i>	150. <i>Vaccines (Various sources)</i>
151. <i>Antigens (Various sources)</i>	152. <i>Antibodies (Various sources)</i>
153. <i>Antibiotics (Various sources)</i>	154. <i>Enzymes (Various sources)</i>
155. <i>Proteins (Various sources)</i>	156. <i>Vaccines (Various sources)</i>
157. <i>Antigens (Various sources)</i>	158. <i>Antibodies (Various sources)</i>
159. <i>Antibiotics (Various sources)</i>	160. <i>Enzymes (Various sources)</i>
161. <i>Proteins (Various sources)</i>	162. <i>Vaccines (Various sources)</i>
163. <i>Antigens (Various sources)</i>	164. <i>Antibodies (Various sources)</i>
165. <i>Antibiotics (Various sources)</i>	166. <i>Enzymes (Various sources)</i>
167. <i>Proteins (Various sources)</i>	168. <i>Vaccines (Various sources)</i>
169. <i>Antigens (Various sources)</i>	170. <i>Antibodies (Various sources)</i>
1	

20.(a) Quantitative environmental impact of actions described in item #18:  
REDUCTIONS/ELIMINATIONS:

[illegible]

# REPORTED INFORMATION:

Pollutant	Pollutant code /CAS #	Amount	Units	Media

20.(b) Qualitative environmental impact of actions listed in item #18. Select one or more of the following predicted benefits: observed or

Human health protection:	Actual <input type="checkbox"/> Potential <input type="checkbox"/>	Reductions beyond compliance requirements	<input type="checkbox"/>
Worker protection:	Actual <input type="checkbox"/> Potential <input type="checkbox"/>	Increased public awareness	<input type="checkbox"/>
Ecosystem protection:	Actual <input type="checkbox"/> Potential <input type="checkbox"/>	Increased Fed/St/local govt knowledge	<input type="checkbox"/>
Environmental Restoration/Land Use	—		
Other (please describe)	Additional info to determine Compliance with operating limits.		

## C. Supplemental Environmental Project (SEP) Information

21. Categories of SEP(s) (Check all appropriate categories; if no proceed to #26)

- ☐ (a) Public Health
- ☐ (b) Pollution Prevention
  - ☐ (1) equipment/technology modifications
  - ☐ (2) process/procedure modification
  - ☐ (3) product reformulation/redesign
  - ☐ (4) raw materials substitution
  - ☐ (5) improved housekeeping/O&M/training/inventory-control
  - ☐ (6) in-process recycling
  - ☐ (7) energy efficiency/conservation
- ☒ (c) Pollution Reduction
- ☐ (d) Environmental Restoration and Protection
- ☐ (e) Assessments and Audits
- ☐ (f) Environmental Compliance Promotion
- ☐ (g) Emergency Planning and Preparedness
- ☐ (h) Other SEP category (specify)

22. SEP description Remediate pond area on site which received outfall from waste water treatment plant - Determine concentration of contaminants - assess impact to groundwater.

23. Cost of SEP. Cost calculated by the Project Model is preferred. \$ 72,507

24. Is Environmental Justice addressed by SEP? ☐ Yes ☒ No

25.(a) Quantitative environmental impact of SEP: pollutants and/or chemicals and/or waste-streams, and amount of reductions/eliminations (e.g., emissions/discharges)

Pollutant	Pollutant code/CAS #	Amount	Units	(Percent) %	Media
Volatile & semi-volatile organics associated with production of Styrene.		Unknown at this time		( ) %	Soil
				( ) %	
				( ) %	
				( ) %	
				( ) %	
				( ) %	

25.(b) Qualitative environmental impact of SEP. Select one or more of the following predicted benefits:

Human health protection:	Actual <input type="checkbox"/> Potential <input checked="" type="checkbox"/>
Worker protection:	Actual <input type="checkbox"/> Potential <input type="checkbox"/>
Ecosystem protection:	Actual <input type="checkbox"/> Potential <input type="checkbox"/>
Environmental restoration	
Increased public awareness	
Increased Fed/State/local govt. knowledge	
Other (please describe)	

## D. Penalty (if there is no penalty, enter 0 and proceed to #28)

26.(a) Assessed Penalty \$ 149,639

26.(b) (if shared) Federal share \$  

26.(c) (if shared) State or Local share \$  

27. For multi-media actions, Federal amounts by statute:

Statute	Amount
	\$ <u> </u>
	\$ <u> </u>
	\$ <u> </u>

## E. Cost Recovery

28. Amount cost recovery awarded: \$   EPA

\$   State and/or Local Government \$   other

Please attach additional Conclusion Sheets or sheets of paper to provide information which does not fit on initial Case Conclusion Data Sheet.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

RECEIVED  
REGIONAL HEARING  
CLERK

'96 SEP 27 P4:42

REPLY TO THE ATTENTION OF:

September 27, 1996

**CERTIFIED & POUCH MAIL**  
**CERTIFIED RETURN RECEIPT REQUESTED**

US ENVIRONMENTAL  
PROTECTION AGENCY  
REGION V

Honorable Carl C. Charneski  
Administrative Law Judge  
U.S. EPA  
401 M Street, S.W. (1900)  
Washington, D.C. 20460

Re: The Dow Chemical Company, Hanging Rock Plant, Ironton, Ohio  
Docket No. V-W-001-95  
Notice of Settlement and Resolution of Case

Dear Judge Charneski:

Per my representation in the September 16, 1996 status report that I offered to file an additional status report on the progress in settlement negotiations, enclosed please find a copy of Complainant's Notice of Settlement and Consent Agreement and Final Order filed today in the above-captioned matter. As the need for a hearing in this case is now mooted by the settlement embodied in the CAFO and SOW, I hope that receipt of this CAFO and SOW gives you ample time in which to cancel your travel plans to Ohio.

Sincerely,

*Jerome P. Kujawa*

Jerome P. Kujawa  
Assistant Regional Counsel  
U.S. Environmental Protection Agency

cc: Paul Bork  
Legal Department  
The Dow Chemical Company  
2030 W H Dow Center  
Midland, Michigan 48674

Estelle Patterson  
Acting Regional Hearing Clerk  
U.S. EPA  
77 West Jackson Blvd.  
Chicago, Illinois 60604



RECEIVED  
REGIONAL HEARING  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5

'96 SEP 27 P4:42

IN RE:

THE DOW CHEMICAL COMPANY  
HANGING ROCK PLANT  
IRONTON, OHIO 45638

EPA I.D. No.: OHD 039 128 913

Respondent.

) DOCKET NO. V-W-001-95  
US ENVIRONMENTAL  
PROTECTION AGENCY  
REGION V  
)  
)  
)  
)  
)

COMPLAINANT'S NOTICE OF SETTLEMENT

Complainant, by and through the undersigned counsel, makes the following Notice of Settlement.

Complainant and Respondent have settled this case before the scheduled trial dates of October 8 through 10, 1996. Counsel for Complainant is enclosing a copy of the Consent Agreement and Final Order, which resolves this case. The CAFO and attached SOW for a Supplemental Environmental Project describe Respondent's obligations in resolution of Complainant's complaint in this matter.

Respectfully,

*Jerome P. Kujawa*

Jerome P. Kujawa  
Assistant Regional Counsel  
U.S. Environmental Protection Agency

# RCRA CONSENT AGREEMENT AND FINAL ORDER SIGN-OFF

## PART I BACKGROUND

Facility Name Dow Chemical Company - Hanging Rock Plant  
 Facility RCRA ID Number OHD 039 128 913  
 Docket Number V-W-001-95  
~~ECAB~~ ~~RED~~ Assignee M. Cunningham ORC Assignee J. Kujawa  
 Summary of Agreement monitor vent gas, resubmit COC performed, pay civil penalty

## PART II CONCURRENCES ON DRAFT CAFO

	Initials	Date	Agree	Disagree
<del>ECAB</del> <del>RED</del> Assignee	<u>Joc</u>	<u>08/26/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>ILL/IN ECAS</del> Chief, <del>RCRA Enf. Section</del>	<u>J. A. Jereza</u>	<u>9/5/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>Chief, RCRA Enf. Branch</del>	<u>JMB</u>	<u>9/17/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>ECAB</del> Asst. Regional Counsel	<u>J. Kujawa</u>	<u>8/27/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>J. Kujawa</del> Chief, S.W.E.R. Section	<u>Qz</u>	<u>9/19/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## PART III RETURN TO ORC ASSIGNEE FOR TRANSMITTAL OF DRAFT TO THE FACILITY done - J. Kujawa

## PART IV FINAL CAFO APPROVAL

<del>ECAB</del> <del>RED</del> Assignee	<u>ME</u>	<u>09/27/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>ILL/IN ECAS</del> Chief, <del>RCRA Enf. Section</del>	<u>JMB</u>	<u>9/27/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>Chief, RCRA Enf. Branch</del>	<u>JMB</u>	<u>9/27/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>Asst. Regional Counsel</del>	<u>J. Kujawa</u>	<u>9/26/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>J. Kujawa</del> Chief, S.W.E.R. Section	<u>JMB</u>	<u>9/26/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>Assoc. Dir., Office of RCRA</del>	<u>JMB</u>	<u>9/27/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>Chief, ECAB Branch</del>	<u>JMB</u>	<u>9/27/96</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<del>Director, WPTD</del>	<u>JMB</u>	<u>9/27</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## PART V RETURN TO ANITA PERRY, ~~SHRE 83~~, FOR MAILING DEE-83

### SPECIAL HANDLING

PLEASE EXPEDITE  
 FINAL APPROVAL AS  
 CASE IS SET FOR  
TRIAL OCT. 8, 1996. WE NEED  
 AMPLE TIME TO TRANSMIT CAFO <sup>TO JUDGE</sup>

rec'd & approved 9/26/96  
 back from J. Kujawa

D-8J

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. Paul Bork  
The Dow Chemical Company  
Legal Department  
2030 Dow Center  
Midland, Michigan 48674  
Docket No.: V-W-001-95

Dear Mr. Bork:

I have enclosed one original of a fully executed Consent Agreement and Final Order (CAFO) in resolution of the above case. The other original was filed on September 27, 1996, with the Regional Hearing Clerk.

Within 30 calendar days of the effective date of the enclosed CAFO, please pay the civil penalty in the manner prescribed in paragraphs 29 and 30 of the CAFO, and reference your check with the number BD.

Thank you for your cooperation in resolving this matter.

Sincerely,

Joseph M. Boyle, Chief  
Enforcement and Compliance Assurance Branch

Enclosure

cc: Regional Hearing Clerk/E-19J (w/CAFO)  
Honorable Jon G. Lotis, ALJ (w/CAFO)  
Jerome Kujawa, ORC (C-29A) (w/CAFO)  
Dorothy Price, Finance, MF-10J (w/CAFO)

bcc: Chris Moraga, D-8J (w/CAFO)  
 Bill Omohundro, OPA-19J (wo/CAFO)  
 Carolyn Carr, OWPE (OS-520) (w/penalty sheets)  
 Branch Reading File  
 Michael Cunningham, DRE-8J

**ENFORCEMENT AND COMPLIANCE ASSURANCE BRANCH**

SECRETAR Y	SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETAR Y
AUTHOR/ TYPIST	MINN/OHIO SECTION CHIEF	MICHIGAN/ WISCONSIN SECTION CHIEF	ILLINOIS/ INDIANA SECTION CHIEF	ECAB BRANCH CHIEF	WPTD DIVISION DIRECTOR
Ule 09-27-96			fi 09-27-96	RJB 9-27-96	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

RECEIVED  
REGIONAL HEARING

April 15, 1996

'96 APR 15 P12:08  
REPLY TO THE ATTENTION OF:

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

US ENVIRONMENTAL  
PROTECTION AGENCY  
REGION V

Honorable Carl C. Charneski  
Administrative Law Judge  
U.S. Environmental Protection Agency  
401 M Street. S.W.  
Washington, D.C. 20460

Re: The Dow Chemical Company, Hanging Rock Plant, Ironton, Ohio  
Docket No. V-W-001-95  
U.S. EPA Response to Respondent's Pre-Hearing Exchange

Dear Judge Charneski:

Enclosed please find U.S. EPA's Response To Respondent's Pre-Hearing Exchange.

Sincerely,

Jerome P. Kujawa  
Assistant Regional Counsel  
U.S. Environmental Protection Agency

cc: Paul Bork  
Legal Department  
The Dow Chemical Company  
2030 W. H. Dow Center  
Midland, Michigan 48674

Jodi Swanson  
Regional Hearing Clerk  
U.S. EPA  
77 West Jackson Boulevard  
Chicago, Illinois 60604

RECEIVED  
REGIONAL OFFICE

'96 APR 15 12:08

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION V

IN RE: )  
 ) DOCKET NO. V-W-001-95  
THE DOW CHEMICAL COMPANY )  
HANGING ROCK PLANT )  
IRONTON, OHIO 45638 )  
EPA I.D. No.: OHD 039 128 913 )  
Respondent. )

---

COMPLAINANT'S RESPONSE TO RESPONDENT'S PRE-HEARING EXCHANGE

1. In Respondent's Exhibit 2j, page 3, Respondent asserts that the Particulate Matter emission rate is almost directly proportional to ash feed rate, and therefore, Respondent should be allowed to use extrapolation to determine the ash feed rate.

U.S. EPA maintains that definitive data does not currently exist which shows a direct relationship between Particulate Matter emissions and ash feed rate. An allowance is made during the permit process to study site specific data and relationships, but until the time U.S. EPA issues the permit, the interim status regulations must be complied with, which includes an ash feed rate limit for all boilers which burn hazardous waste.

2. In Respondent's Exhibit 2k, page 3, Respondent asserts that the Particulate Matter standard is primarily used to address control of metals and organic compounds adsorbed onto small particles of Particulate Matter (as stated in the Feb. 21, 1991 Preamble), and that their waste contains low levels of metals.

U.S. EPA maintains that Respondent's waste contains high levels of organic compounds, and that therefore, a Particulate Matter standard is relevant.

3. In Respondent's Exhibit 2j, page 4, Respondent states that extrapolation was discussed in a conference call with U.S. EPA

Region's 1 and 9. Respondent feels that this should allow them to utilize extrapolation during interim status.

U.S. EPA maintains that extrapolation is available as an option which might be approved for a facility when a permit is issued, but is not available during interim status. A conference call cannot change the availability of this option during the interim status period. U.S. EPA Region 5 was not involved in the conference call. Also, page 10-14, section 10.5 of the Technical Implementation Document for BIF's (Complainant's Exhibit 9) states " Because extrapolation/ interpolation of data is valid only in certain circumstances, and because EPA is able to provide only limited oversight during interim status, it should not be used for compliance certification. Operating conditions demonstrated during the compliance test provide the basis for limits established in the compliance certification, as discussed in Section 5.0."

4. In Respondent's Exhibit 2k and 3a, Dow states that carbon monoxide emissions from its BIFs are comparable to carbon monoxide emissions from automobiles.

U.S. EPA maintains that the carbon monoxide limit of 100 ppmv was established by EPA as being protective of human health and the environment. The final rule states that the Agency is confident that the BIF rule is protective because the Agency has determined that, when carbon monoxide levels are less than 100 ppmv, products of incomplete combustion do not pose significant risk. (See 56 Federal Register, page 7151 (Complainant's exhibit 10)). Carbon monoxide less than 100ppmv, as an indicator of complete combustion, is vital to ensure additional hazardous contaminants are not released to the atmosphere. Based on Respondent's monitoring evaluations, the limit of 100 ppmv was exceeded on the occasions alleged in the Complaint.

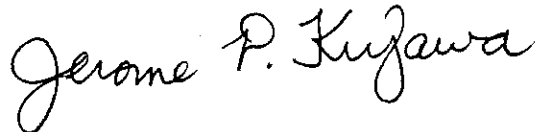
5. In Respondent's Exhibit 3b, Respondent asserts that the actual average level of exceedances, only considering peaks, equals 11.18%, and therefore, not a significant deviation from the regulation.

U.S. EPA finds that the methodology and explanation for the calculations from Respondent in its Exhibit 3b are unclear. The data in Complainant's Exhibit 15 used to support the allegations in Count Five represent the **maximum** minute average hazardous waste flow rate value on a particular day. This does not suggest that there was only one ten second exceedance on that day. Also, some of these exceedances were 50% over the limit of 69,886 g/hr (see dates 9/4/91 through 9/16/91, pg. 1 of attachment 1-1 of Dow's September 30, 1993 letter, Complainant's exhibit 15), and reached almost three times the limit on 10/25/91 (see same letter). Dow is required to comply with the certified limits during the time periods for which those limits are valid.

6. In Respondent's Exhibit 3c, Respondent asserts that carbon monoxide spikes caused the hourly rolling average exceedances.

U.S. EPA maintain that in promulgating the BIF Regulation, it took into account the occurrence of carbon monoxide spikes. 56 Federal Register, page 7151 (Complainant's exhibit 10) states "The time-weighted average for the carbon monoxide limit is provided to accommodate the carbon monoxide spikes that inevitably occur during routine upsets, such as when hazardous waste fuel firing starts, when there is a load change on an industrial boiler, or when the composition of fuels varies." Utilizing a hazardous waste cutoff level of less than 100 ppm for carbon monoxide, would aid in stopping the hazardous waste feed into the boiler prior to exceeding 100 ppm carbon monoxide, and thereby prevent a violation from occurring.

Respectfully,

A handwritten signature in cursive script that reads "Jerome P. Kujawa". The signature is written in dark ink and is positioned below the word "Respectfully,".

Jerome P. Kujawa  
Assistant Regional Counsel  
U.S. Environmental Protection Agency



CERTIFICATE OF SERVICE

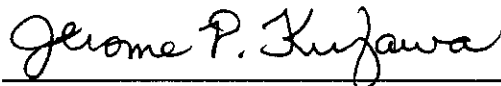
I hereby certify that I have caused a copy of the foregoing Complainant's Response to Respondent's Pre-Hearing Exchange to be served upon each person designated below, on the date below, by causing said copy to be deposited in the U.S. Mail, First Class and certified-return receipt requested, postage prepaid, at Chicago, Illinois, in an envelope addressed to:

Honorable Carl C. Charneski  
Administrative Law Judge  
U.S. EPA (M3706)  
410 M Street, S.W.  
Washington, D.C. 20460

Paul Bork  
Legal Department  
The Dow Chemical Company  
2030 W H Dow Center  
Midland, Michigan 48674

I have further caused the original of the Complainant's Response to Respondent's Pre-Hearing Exchange and this Certificate of Service to be served in the Office of the Regional Hearing Clerk located in the Planning and Management Division, U.S. EPA, Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604, on the date below.

Dated this 15th day of April, 1996.



Jerome P. Kujawa  
Assistant Regional Counsel  
U.S. Environmental Protection Agency



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

March 25, 1996

REPLY TO THE ATTENTION OF:

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Honorable Jon G. Lotis  
Chief Administrative Law Judge  
U.S. EPA (M3706)  
401 M Street, S.W.  
Washington, D.C. 20460

Re: The Dow Chemical Company, Hanging Rock Plant, Ironton, Ohio  
Docket No. V-W-001-95  
Pre-Hearing Exchange and Motion For Protective Order Allowing  
for Supplemental Filing of Document in Exhibit 18

Dear Judge Lotis:

Enclosed please find a copy of Complainant's Pre-Hearing Exchange and Motion For Protective Order Allowing Supplemental Filing of Document for Exhibit 18, filed today in the above-captioned matter. In the Motion contained in the Pre-Hearing Exchange, Complainant respectfully requests that the court allow it to file documentation which Respondent Dow claims to be Confidential Business Information, because this documentation shows hazardous waste feedrate information which Complainant maintains is pertinent to establish evidence of the violations cited to in Complaint Counts 8 and 9 relating to ash in Respondent's Boiler Industrial Furnace.

Sincerely,

*Jerome P. Kujawa*

Jerome P. Kujawa  
Assistant Regional Counsel  
U.S. Environmental Protection Agency

cc: Paul Bork  
Legal Department  
The Dow Chemical Company  
2030 W H Dow Center  
Midland, Michigan 48674

Jodi Swanson  
Regional Hearing Clerk  
U.S. EPA  
77 West Jackson Blvd.  
Chicago, Illinois 60604



State of Ohio Environmental Protection Agency

**Southeast District Office**

195 Front Street  
Logan, Ohio 43138-9031  
(614) 385-8501  
FAX (614) 385-6490

**RECEIVED**  
AUG 29 1995

**OFFICE OF RCRA**  
WASTE MANAGEMENT DIVISION  
EPA REGION V

George V. Voinovich  
Governor

August 24, 1995

**RE: LAWRENCE COUNTY  
DOW CHEMICAL COMPANY  
RCRA-LQG/ST1  
OHD039128913  
04-44-0022**

**Dow Chemical Company**  
Hanging Rock Plant  
Gilruth Lane  
Ironton, Ohio 45638

Attn: Mr. Kenan Stevick

Dear Sir:

On August 15, 1995, Ohio EPA and U.S. EPA conducted an inspection of your facility to determine compliance with Ohio's hazardous waste regulations. At the time of inspection, the following violation was noted:

1. Hazardous waste determination, OAC 3745-52-11: This rule requires generators of wastes to determine if their wastes are hazardous wastes. At the time of inspection, Dow had failed to determine if spent fluorescent light bulbs are hazardous wastes.

Within thirty days from the date of this letter, please provide a written waste determination to this office. Should the spent lamps be hazardous wastes, Dow should manage them appropriately. I have enclosed some information about fluorescent lamps, including a fact sheet and a list of recyclers.

A copy of the inspection checklists is enclosed. Failure to list specific deficiencies in this letter does not relieve you of the responsibility of complying with all applicable regulations. This letter does not relieve Dow Chemical Company from liability for any past or present violations of the state's hazardous waste laws.



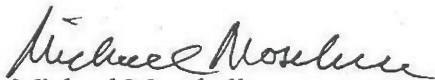
DOW CHEMICAL COMPANY

AUGUST 24, 1995

PAGE 2

Should you have any questions or require assistance, please contact me at this office.

Sincerely,



Michael Moschell

Inspector

Division of Hazardous Waste Management

MM/jg

Enclosure

cc: (w/enclosure):

Laurie Stevenson - DHWM, CO

Duncan Campbell - USEPA, Region V

AUG 14 1990

5HR-12

Mr. Myron Martin  
Dow Chemical Company  
Gilruth Lane  
Ironton, Ohio 45638

Re: Return to Compliance  
Dow Chemical Company  
OHD 039 128 913

Dear Mr. Martin:

We have received and reviewed your letter of July 20, 1990, regarding our Notice of Violation (NOV) dated May 8, 1990.

The information submitted with your letter appears to meet the requirements of the land disposal restriction regulation found at 40 CFR 268. We have, therefore, returned this facility to compliance for those violations cited in our NOV.

If you should have any further questions, please contact Jean Gromnicki of my staff at (312) 886-4555.

Sincerely yours,

Sally K. Swanson, Chief  
IN/MN/OH Enforcement Program Section

cc: Mike Savage, OEPA  
Mike Moschell, SEDO

bcc: Sally Swanson, REB

5HR-12 gromnicki.walker 6-8093 diskette #4 filename: myron.m

8/6/90

RCRA ENFORCE- MENT	REB STAFF	REB SECTION CHIEF	REB CHIEF
INIT. DATE	JK 8-8-90	SKS 8-13-90	

Suggested Agenda  
EPA Complaint VW-001-95  
Informal Settlement Conference  
April 25, 1995  
9 am  
10

1. Introductions
2. Goals of the Meeting, & Desired Outcomes
3. Agenda - Adjust, Agree
4. Brief Overview of Dow BIF Unit and Process
5. Discussion of Complaint

Count 1: Continuous Monitoring and Recording

Count 2: Operating Limits

Count 3: Vapor Feedstream

Count 4: Waste Analysis and Closure Plans

Count 5: Hazardous Waste Feed Rate

Counts 6 & 7: CO Standard

Counts 8 & 9: Ash Feed Rate

6. Summary and Action Items
7. Set date and time for follow-up meeting
8. Adjourn



# MEETING ROSTER

Date: April 25, 1999

Subject: Informal Settlement Meeting U.S. EPA and Dow Chemical (Hanging Rock Plant)  
Docket No. V-WI-01-99

Location: Chicago, IL U.S. EPA Offices

Name (please print)	Company Affiliation	Telephone Number
Katherine Anderson	DOW CHEMICAL - Hanging Rock	614-533-4215
Paul Bork	Dow	517/636-4399
Terry S. Cox	Dow Chemical	517 636-4287
JEROME KUJAWA	U.S. EPA - ORC	(312)-886-6731
Michael Cunningham	U.S. EPA - RCRA Ext.	(312)-886-4464



## Dow North America

### TERRY S. COX

Environmental Manager  
Continental Operations

The Dow Chemical Company  
Downtown Office Center  
Midland, MI 48674  
Fax: 517-638-2456

517-636-4287



## Dow U.S.A.

### KATHERINE M. ANDERSON

Manager  
Environmental, Health, Safety & Quality Performance

The Dow Chemical Company  
Hanging Rock Plant  
Rt. 2, Box 253  
Ironton, Ohio 45638

(614) 533-4215 Fax: (614) 533-4232



### PAUL BORK

Senior Attorney  
Legal Department

The Dow Chemical Company  
2030 Dow Center  
Midland, MI 48674

(517) 636-4399



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HR-8J

OCT 31 1994

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

C.T. Corporation System  
Registered Agent for  
The Dow Chemical Company  
815 Superior Avenue, N.E.  
Cleveland, Ohio 44114

Re: Complaint and Compliance Order  
The Dow Chemical Company  
Hanging Rock Plant  
EPA I.D. No.: OHD 039 128 913

Dear Sir or Madam:

**NEW- 001 '95**

Enclosed please find a Complaint and Compliance Order which sets forth the Agency's determination of certain violations of the Resource Conservation and Recovery Act (RCRA) as amended, 42 U.S.C. §6901 et seq., by The Dow Chemical Company (Dow). The Agency's determination is based on inspections performed at Dow's Hanging Rock Plant located in Ironton, Ohio by representatives of the United States Environmental Protection Agency (U.S. EPA) and the Ohio Environmental Protection Agency (OEPA) and information in U.S. EPA files. The allegations in the enclosed Complaint state the reasons for such a determination. In essence, Dow violated regulations applicable to the burning or processing of hazardous waste in a boiler.

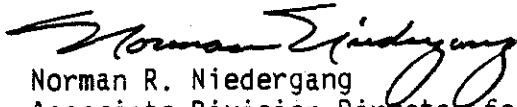
Accompanying this Complaint is a Notice of Opportunity for Hearing. Should you desire to contest the Complaint, a written request for a hearing is required to be filed within thirty (30) days of the date this Complaint has been filed with the Regional Hearing Clerk. The request for a hearing must be filed with the Regional Hearing Clerk (MF-10J), United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604. A copy of your request should also be sent to Jerome Kujawa, Office of Regional Counsel (CS-30A) at the above address.



Regardless of whether you choose to request a hearing within the prescribed time limit following the filing of this Complaint, you are extended an opportunity to request an informal settlement conference. Topics for discussion at the settlement conference may include the establishment of a compliance schedule or the mitigation of the proposed penalty in accordance with Agency guidance on pollution prevention and supplemental environmental projects. A request for an informal settlement conference with U.S. EPA will not affect or extend the thirty (30) day deadline to file an Answer in order to avoid a Finding of Default on the Complaint.

If you have any questions or desire to request an informal conference for the purpose of conducting settlement discussions with Waste Management Division staff, please contact Julianne Socha, United States Environmental Protection Agency, RCRA Enforcement Branch (HRE-8J), 77 West Jackson Boulevard, Chicago, Illinois 60604. Her phone number is (312) 886-4436.

Sincerely yours,



Norman R. Niedergang  
Associate Division Director for RCRA  
Waste Management Division

Enclosure

cc: Michael Savage, OEPA-CO

Katherine M. Anderson, Manager, Environmental, Health & Safety  
The Dow Chemical Company  
Hanging Rock Plant

# RCRA ENFORCEMENT ACTION SIGN-OFF

## PART I. BACKGROUND

FACILITY NAME The Dow Chemical Company  
 FACILITY LOCATION Ironton, Ohio  
 RCRA ID NUMBER 04D 039 128 913  
 ASSIGNEES REB J Socha ORC J. Kujawa  
 NATURE OF VIOLATION BIF violations  
 DATE OF DISCOVERY May 12-13, 1993 and April 21, 1994  
 DATE OF REFERRAL \_\_\_\_\_ ( ☒ ) NOT APPLICABLE  
 ANY OTHER OUTSTANDING OR PAST ENFORCEMENT ACTIONS AGAINST THIS FACILITY:

PART II. RECOMMENDATION 3008(a) action w/ penalties

## PART III. CONCURRENCES ON DRAFT

	INITIALS	DATE	AGREE	DISAGREE
PREPARER	<u>KL</u>	<u>09/27/94</u>	( <input checked="" type="checkbox"/> )	( )
CHIEF, RCRA ENF. SECTION	<u>24</u>	<u>9-28-94</u>	( <input checked="" type="checkbox"/> )	( )
CHIEF, RCRA ENF. BRANCH	<u>JMB</u>	<u>9/28/94</u>	( <input checked="" type="checkbox"/> )	( )
ASSISTANT REGIONAL COUNSEL	<u>KUJAWA</u>	<u>9/29/94</u>	( <input checked="" type="checkbox"/> ) <i>had comments</i>	( )

PART IV. NAME & DATE OF 3008(a)(2) NOTICE LETTER September 21, 1994 letter to Michael Savage, OEPA

## PART V. APPROVAL

1. PREPARER	<u>J Socha</u>	<u>9-30-94</u>	( )	( )
2. CHIEF, RCRA ENF. SECTION	<u>24</u>	<u>9-30-94</u>	( <input checked="" type="checkbox"/> )	( )
3. CHIEF, RCRA ENF. BRANCH	<u>JMB</u>	<u>9/30/94</u>	( )	( )
4. ASSISTANT REGIONAL COUNSEL	<u>KUJAWA</u>	<u>9/29/94</u>	( <input checked="" type="checkbox"/> )	( )
5. CHIEF, S.W. & E.R. SECTION	<u>Oxley</u>	<u>9/30/94</u>	( <input checked="" type="checkbox"/> )	( )
6. ASSOC. DIR., OFFICE OF RCRA	<u>SA</u>	<u>10/13/94</u>	( <input checked="" type="checkbox"/> )	( )

7. Return to Chief, REB for filing w/ Reg. Hearing Clerk

NOTE: Attach sign-off sheets to yellow copy of the enforcement action.

projection JMB

★ This is a 4th Quarter ~~commitment~~ ★



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HR-8J

OCT 31 1994

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

C.T. Corporation System  
Registered Agent for  
The Dow Chemical Company  
815 Superior Avenue, N.E.  
Cleveland, Ohio 44114

Re: Complaint and Compliance Order  
The Dow Chemical Company  
Hanging Rock Plant  
EPA I.D. No.: OHD 039 128 913

Dear Sir or Madam:

MEVW-001 '95

Enclosed please find a Complaint and Compliance Order which sets forth the Agency's determination of certain violations of the Resource Conservation and Recovery Act (RCRA) as amended, 42 U.S.C. §6901 et seq., by The Dow Chemical Company (Dow). The Agency's determination is based on inspections performed at Dow's Hanging Rock Plant located in Ironton, Ohio by representatives of the United States Environmental Protection Agency (U.S. EPA) and the Ohio Environmental Protection Agency (OEPA) and information in U.S. EPA files. The allegations in the enclosed Complaint state the reasons for such a determination. In essence, Dow violated regulations applicable to the burning or processing of hazardous waste in a boiler.

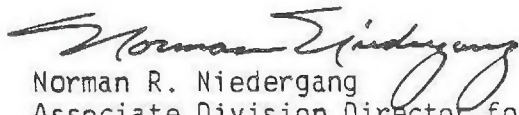
Accompanying this Complaint is a Notice of Opportunity for Hearing. Should you desire to contest the Complaint, a written request for a hearing is required to be filed within thirty (30) days of the date this Complaint has been filed with the Regional Hearing Clerk. The request for a hearing must be filed with the Regional Hearing Clerk (MF-10J), United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604. A copy of your request should also be sent to Jerome Kujawa, Office of Regional Counsel (CS-30A) at the above address.



Regardless of whether you choose to request a hearing within the prescribed time limit following the filing of this Complaint, you are extended an opportunity to request an informal settlement conference. Topics for discussion at the settlement conference may include the establishment of a compliance schedule or the mitigation of the proposed penalty in accordance with Agency guidance on pollution prevention and supplemental environmental projects. A request for an informal settlement conference with U.S. EPA will not affect or extend the thirty (30) day deadline to file an Answer in order to avoid a Finding of Default on the Complaint.

If you have any questions or desire to request an informal conference for the purpose of conducting settlement discussions with Waste Management Division staff, please contact Julianne Socha, United States Environmental Protection Agency, RCRA Enforcement Branch (HRE-8J), 77 West Jackson Boulevard, Chicago, Illinois 60604. Her phone number is (312) 886-4436.

Sincerely yours,

  
 Norman R. Niedergang  
 Associate Division Director for RCRA  
 Waste Management Division

Enclosure

cc: Michael Savage, OEPA-CO

Katherine M. Anderson, Manager, Environmental, Health & Safety  
 The Dow Chemical Company  
 Hanging Rock Plant

Is your RETURN ADDRESS completed on the reverse side?	<b>SENDER:</b> <ul style="list-style-type: none"> <li>• Complete items 1 and/or 2 for additional services.</li> <li>• Complete items 3, and 4a &amp; b.</li> <li>• Print your name and address on the reverse of this form so that we can return this card to you.</li> <li>• Attach this form to the front of the mailpiece, or on the back if space does not permit.</li> <li>• Write "Return Receipt Requested" on the mailpiece below the article number.</li> <li>• The Return Receipt will show to whom the article was delivered and the date delivered.</li> </ul>		I also wish to receive the following services (for an extra fee): <ul style="list-style-type: none"> <li>1. <input type="checkbox"/> Addressee's Address</li> <li>2. <input type="checkbox"/> Restricted Delivery</li> </ul> Consult postmaster for fee.							
	3. Article Addressed to: <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">           C.T. Corporation System            815 Superior Avenue, N.E.            Cleveland, OH 44114         </div>		4a. Article Number <div style="font-size: 1.2em; font-family: cursive;">P188 578 142</div>							
	5. Signature (Addressee) <div style="font-size: 1.2em; font-family: cursive;">C.T. CORPORATION SYSTEM</div>		4b. Service Type <table border="0"> <tr> <td><input type="checkbox"/> Registered</td> <td><input type="checkbox"/> Insured</td> </tr> <tr> <td><input checked="" type="checkbox"/> Certified</td> <td><input type="checkbox"/> COD</td> </tr> <tr> <td><input type="checkbox"/> Express Mail</td> <td><input type="checkbox"/> Return Receipt for Merchandise</td> </tr> </table>		<input type="checkbox"/> Registered	<input type="checkbox"/> Insured	<input checked="" type="checkbox"/> Certified	<input type="checkbox"/> COD	<input type="checkbox"/> Express Mail	<input type="checkbox"/> Return Receipt for Merchandise
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<input type="checkbox"/> Express Mail	<input type="checkbox"/> Return Receipt for Merchandise									
6. Signature (Sender) <div style="font-size: 1.2em; font-family: cursive;">C.T. CORPORATION SYSTEM</div>		7. Date of Delivery <div style="font-size: 1.2em; font-family: cursive;">NOV 03 1994</div>								
8. Addressee's Address (Only if requested and fee is paid) <div style="font-size: 1.2em; font-family: cursive;">815 SUPERIOR AVENUE, N. E. CLEVELAND, OHIO 44114</div>										

PS Form 3811, December 1991    ★U.S. GPO: 1992-323-402    **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

bcc: Carolyn Carr, OWPE (OS-520)  
 Jerome Kujawa, ORC (CS-30A)  
 Anita Perry, HRE-8J  
 Christina Moraga, HR-8J

HRE-8J:JSocha:6-4436:071194:a:dow.cmp

(Jac's Enforcement Disk 3)

SIGNATURE/INITIAL CONCURRENCE REQUESTED - RCRA ENFORCEMENT BRANCH (REB)									
TYP.	AUTH	IL/IN TES CHIEF	MI/WI TES CHIEF	MN/OH TES CHIEF	IL/MI/WI EPS CHIEF	IN/MN/OH EPS CHIEF	REB BRANCH CHIEF	RCRA ASSOC. DIR.	WMD DIVISION DIRECTOR
	Jac 06/31	X	X		X	X		260/31	X

SIGNATURE/INITIAL CONCURRENCE REQUEST FROM ORC				
OTHER STAFF	ASS'T REGIONAL COUNSEL	S.W.E.R. SECTION CHIEF	S.W.E.R. BRANCH CHIEF	REGIONAL COUNSEL
			X	X

RECEIVED  
REGIONAL HEARING  
CLERK

1994 OCT 31 PM 2:56

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION V

US ENVIRONMENTAL  
PROTECTION AGENCY  
REGION V

IN RE:

THE DOW CHEMICAL COMPANY  
HANGING ROCK PLANT  
IRONTON, OHIO 45638

EPA I.D. No.: OHD 039 128 913

Respondent.

DOCKET NO.

**V-W- 001 '95**

COMPLAINT AND PROPOSED COMPLIANCE ORDER  
and  
NOTICE OF OPPORTUNITY FOR HEARING

I

COMPLAINT

GENERAL ALLEGATIONS

1. This is a civil administrative action instituted pursuant to Section 3008(a)(1) of the Resource Conservation and Recovery Act of 1976, as amended (RCRA), 42 U.S.C. §6928(a)(1), and Sections 22.01(a)(4), 22.13 and 22.37 of the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits, 40 CFR Parts 22.01(a)(4), 22.13 and 22.37.

2. The Complainant is, by lawful delegation, the Associate Division Director, Office of RCRA, Waste Management Division, Region 5, United States Environmental Protection Agency (U.S. EPA).

3. The Respondent is The Dow Chemical Company (Dow) which is and was at all times relevant to this Complaint, the owner or operator of the Hanging Rock Plant located on Gilruth Lane, Old Route 52, Ironton, Ohio.

4. Respondent is a "person" as defined at Section 1004(15) of RCRA, 42 U.S.C. §6903(15), and Ohio Administrative Code (OAC) 3745-50-10(A)(79) who owns the Hanging Rock Plant, Ironton, Ohio.

5. Respondent is a "person" as defined at Section 1004(15) of RCRA, 42 U.S.C. §6903(15), and Ohio Administrative Code (OAC) 3745-50-10(A)(79) who operates the Hanging Rock Plant, Ironton, Ohio.

6. Respondent operates at least two boilers, R-1 and R-3, which burn or process hazardous waste.

7. Respondent's boilers R-1 and R-3 were in existence on or before August 21, 1991.

8. Respondent is subject to 40 CFR Part 266 Subpart H as of August 21, 1991.

9. The U.S. EPA granted interim authorization to the State of Ohio from July 15, 1983, until January 31, 1986, but retained the authority to issue final RCRA permits. The U.S. EPA granted final authorization to the State of Ohio on June 30, 1989, pursuant to Section 3006(b) of RCRA, 42 U.S.C. §6926(b), to administer and enforce a hazardous waste program in the State of Ohio. 40 CFR Part 272.1800 (7-1-92 Ed). The regulations comprising the applicable State hazardous waste management program for the State of Ohio were incorporated by reference into Federal law at 40 CFR Part 272.1801(a). During periods when the State of Ohio did not have authorization, Federal regulations were applicable to persons who treated, stored or disposed of hazardous waste.

10. Pursuant to Section 3006(g) of RCRA, 42 U.S.C. §6926(g), U.S. EPA must carry out the new requirements promulgated pursuant to the Hazardous and Solid Waste Amendments of 1984 (HSWA), Pub. L. 98-616, until such time as the State is authorized to carry out such program. Under the terms of Section

3006(g), the requirements established by HSWA are effective in all States regardless of their authorization status and are implemented by U.S. EPA until the State is granted final authorization with respect to those requirements.

11. Pursuant to Section 3006(g) of RCRA, U.S. EPA has jurisdiction to implement and enforce those portions of the HSWA requirements for which the State is not authorized, including the regulations that control the burning or processing of hazardous waste in boilers and industrial furnaces (BIFs), found at 40 CFR Part 266 Subpart H.

12. Any violation of regulations promulgated pursuant to Subtitle C, Sections 3001-3019 of RCRA, 42 U.S.C. §§6921-6939, or any State provision approved pursuant to Section 3006 of RCRA, 42 U.S.C. §6926, constitutes a violation of RCRA, subject to the assessment of civil or criminal penalties and compliance orders as provided in Section 3008 of RCRA, 42 U.S.C. §6928.

13. U.S. EPA has provided notice to the State of Ohio concerning this Complaint.

14. On November 8, 1984, RCRA was amended by HSWA to include provisions requiring that U.S. EPA promulgate standards applicable to owners and operators of facilities that burn, for purposes of energy recovery, any fuel produced from hazardous waste or any fuel which otherwise contains hazardous waste. These requirements are found at Section 3004(q) of RCRA, 42 U.S.C. §6924(q).

15. On February 21, 1991, pursuant to Section 3004(q) of RCRA, 42 U.S.C. §6924(q), U.S. EPA promulgated new rules applicable to the burning or processing of hazardous waste in boilers and industrial furnaces. Subsequent amendments to the regulations were published on July 17, 1991 (56 FR 32687-32852); August 27, 1991 (56 FR 42503-42517); September 5, 1991



(56 FR 43874-43877); June 22, 1992 (57 FR 27880-27888); August 25, 1992 (57 FR 38558-38566); September 10, 1992 (57 FR 41566-41626); September 30, 1992 (57 FR 44999-45001); November 9, 1993 (58 FR 59598-59603); and July 28, 1994 (59 FR 38536-38545). These regulations, hereinafter referred to as the "BIF Rule", became effective on August 21, 1991, and are set forth in 40 CFR Part 266 Subpart H.

16. Pursuant to Section 3006(g) of RCRA, requirements imposed pursuant to HSWA take effect immediately in all States. Therefore, the BIF Rule was effective in the State of Ohio on August 21, 1991.

COUNT ONE

17. The allegations of paragraphs 1-16 of the Complaint are incorporated by reference as though set forth here in full.

18. 40 CFR Part 266.103(b)(5) and 40 CFR Part 266.103(c)(4) require that the flow rate of each feedstream being burned in a boiler or industrial furnace be continuously monitored and recorded on either an instantaneous basis or an hourly rolling average basis.

19. 40 CFR Part 266.103(b)(5)(iii) and 40 CFR Part 266.103(c)(4)(iv)(D) require that the feed rate limits for metals, total chlorine and chloride, and ash are monitored by knowing the concentration of the substance in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream must be monitored under the continuous monitoring requirements of paragraphs 40 CFR Parts 266.103(b)(5)(i) and (ii), and 40 CFR Parts 266.103(c)(4)(iv)(A) through (C).

20. The continuous monitoring requirements of paragraphs 40 CFR Parts 266.103(b)(5)(i) and (ii), and 40 CFR Parts 266.103(c)(4)(iv)(A) through (C) require that a limit for a parameter be continuously monitored and recorded on

an instantaneous basis (i.e., the value that occurs at any time) not to be exceeded at any time or a limit for a parameter may be continuously monitored on an hourly rolling average basis. With respect to the hourly rolling average basis, a continuous monitor is one which continuously samples the regulated parameter without interruption and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds, while the hourly rolling average is the arithmetic mean of the 60 most recent one-minute average values recorded by the continuous monitoring system.

21. 40 CFR Part 266.103(j)(1) requires that the flow rates, composition and feed rates of hazardous waste, feedstocks and other fuels, and the feed rates of ash, metals, and total chloride and chlorine in each feed stream be monitored and recorded.

22. Based on information collected during a May 12-13, 1993, and an April 21, 1994, U.S. EPA inspection and a review of information contained within U.S. EPA files it is determined that Respondent failed to continuously monitor and record by either an instantaneous or hourly rolling average basis the flow rate of hazardous waste feed burned in its boilers from August 21, 1991 through at least February 1, 1994.

23. Based on information collected during an April 21, 1994, U.S. EPA inspection and a review of information contained within U.S. EPA files it is determined that Respondent failed to continuously monitor and record by either an instantaneous or hourly rolling average basis the flow rate of a vapor feedstream burned in its boilers from August 21, 1991 through at least April 21, 1994.

24. Respondent's failure to continuously monitor and record each feedstream burned in its boilers constitutes a violation of: (a) 40 CFR Part 266.103(b)(5); (b) 40 CFR Part 266.103(c)(4)(iv); (c) 40 CFR Part 266.103(j)(1); and (e) at least 180 days of violation of RCRA.

COUNT TWO

25. The allegations of paragraphs 1-16 of the Complaint are incorporated by reference as though set forth here in full.

26. 40 CFR Part 266.103(c) requires the owner or operator of a boiler or industrial furnace burning hazardous waste to submit a complete and accurate Certification of Compliance based on the compliance test. The Certification of Compliance must document compliance with emission standards set forth in the BIF Rule at 40 CFR Parts 266.104, 266.105, 266.106, and 266.107 for organic emissions, particulate matter, metal emissions, and hydrogen chloride and chlorine gas emissions, respectively, by establishing limits on operating parameters specified in 40 CFR Part 266.103(c)(1) based on operations during the compliance test under procedures prescribed in 40 CFR Part 266.103(c)(4)(iv).

27. 40 CFR Part 266.103(c)(4)(iv) requires the owner or operator to establish operating limits for the applicable parameters listed in 40 CFR Part 266.103(c)(1) based on compliance test data as the average over all valid test runs of the highest hourly rolling average value of each run.

28. Among other things, 40 CFR Part 266.103(c)(1) requires the owner or operator to establish limits for the feed rate of total hazardous waste and total feed rate of ash in total feedstreams.

29. On or about July 9, 1992, Respondent conducted a compliance test pursuant to 40 CFR Part 266.103(c).

30. Respondent submitted a Certification of Compliance on or about August 19, 1992.

31. Respondent's August 19, 1992, Certification of Compliance established a feed rate of total hazardous waste as 332 pounds per hour (lb/hr).

32. Based on an average over all valid test runs of the highest hourly rolling average of each run from the July 9, 1992, compliance test data the feed rate of total hazardous waste is 242 lb/hr.

33. Respondent failed to establish the operating limit for the feed rate of total hazardous waste based on the average over all valid test runs of the highest hourly rolling average of each run from the July 9, 1992, compliance test.

34. Respondent's August 19, 1992, Certification of Compliance established the total feed rate of ash in total feedstreams as 435 grams per hour (g/hr).

35. Based on an average over all valid test runs of the highest hourly rolling average of each run from the July 9, 1992, compliance test data the total feed rate of ash in total feedstreams is 11 g/hr.

36. Respondent failed to establish the operating limit for the total feed rate of ash in total feedstreams based on the average over all valid test runs of the highest hourly rolling average of each run from the July 9, 1992, compliance test.

37. On or about September 30, 1993, Respondent submitted revised pages for the Certification of Compliance which established the feed rate of total hazardous waste as 242 lb/hr.

38. On or about September 30, 1993, Respondent submitted revised pages for the Certification of Compliance which established the total feed rate of ash in total feedstreams as 11 g/hr.

39. Respondent's failure to establish a complete and accurate operating limit for the feed rate of total hazardous waste constitutes a violation of: (a) 40 CFR Part 266.103(c)(1); and (b) 40 CFR Part 266.103(c)(4)(iv).

40. Respondent's failure to establish a complete and accurate operating limit for the total feed rate of ash in total feedstreams constitutes a violation of: (a) 40 CFR Part 266.103(c)(1); and (b) 40 CFR Part 266.103(c)(4)(iv).

### COUNT THREE

41. The allegations of Paragraphs 1-16 of the Complaint are incorporated by reference as though set forth here in full.

42. 40 CFR Part 266.103(b)(5)(iii) and 40 CFR Part 266.103(c)(4)(iv)(D) require that the feed rate limits for metals, total chlorine and chloride, and ash are monitored by knowing the concentration of the substance (i.e., metals, chloride/chlorine, and ash) in each feedstream and the flow rate of the feedstream.

43. 40 CFR Part 266.103(j)(1)(i) requires owners and operators to monitor and record the feed rates and composition of hazardous waste, other fuels, and industrial furnace feedstocks, and feed rates of ash, metals, and

total chloride and chlorine as necessary to ensure conformance with the Certification of Precompliance and Certification of Compliance.

44. Pursuant to 40 CFR Part 266.103(a)(4)(ii) owners and operators of boilers and industrial furnaces that burn hazardous waste and are operating under interim status are subject to the requirements of 40 CFR Parts 265.11-265.17.

45. 40 CFR Part 265.13(a)(1) requires owners and operators to obtain a detailed chemical and physical analysis of a representative sample of the wastes before treating, storing, or disposing of the waste.

46. Based on information collected during an April 21, 1994, U.S. EPA inspection and a review of information contained within U.S. EPA files it is determined that Respondent failed to obtain, know, monitor, and record the concentration of metals, chloride/chlorine, and ash in the vapor feedstream burned in its boilers.

47. Respondent's failure to obtain, know, monitor, and record the concentration of metals, chloride/chlorine, and ash in the vapor feedstream burned in its boilers constitutes a violation of: (a) 40 CFR Part 266.103(b)(5)(iii); (b) 40 CFR Part 266.103(c)(4)(iv)(D); (c) 40 CFR Part 266.103(j)(1)(i); (d) 40 CFR Part 266.103(a)(4)(ii); (e) 40 CFR Part 265.13(a)(1); and (f) at least 180 days of violation of RCRA.

#### COUNT FOUR

48. The allegations of Paragraphs 1-16 of the Complaint are incorporated by reference as though set forth here in full.

49. Pursuant to 40 CFR Part 266.103(a)(4) owners and operators of boilers and industrial furnaces that burn hazardous waste and are operating under interim status are subject to the following provisions of 40 CFR Part

265 as of August 21, 1991, the effective date of the BIF Rule: Subpart B (General facility standards) and Subpart G (Closure and post-closure).

50. 40 CFR Part 265 Subpart B, Sections 265.11-265.17, require owners or operators to, among other things, develop a written waste analysis plan.

51. 40 CFR Part 265 Subpart G, Sections 265.111-265.115, require owners or operators to, among other things, have a written closure plan.

52. Based on information collected during a May 12-13, 1993, U.S. EPA inspection and a review of information contained within U.S. EPA files it is determined that Respondent did not have a waste analysis plan incorporating the BIF parameters until June 1992.

53. Based on information collected during a May 12-13, 1993, U.S. EPA inspection and a review of information contained within U.S. EPA files it is determined that Respondent did not have a closure plan for boilers R-1 and R-3 until June 1992.

54. Respondent's failure to have a waste analysis plan incorporating the BIF parameters on or before August 21, 1991, constitutes a violation of: (a) 40 CFR Part 266.103(a)(4); (b) 40 CFR Part 265.13; and (c) at least 180 days of violation of RCRA.

55. Respondent's failure to have a closure plan for boilers R-1 and R-3 on or before August 21, 1991, constitutes a violation of: (a) 40 CFR Part 266.103(a)(4); (b) 40 CFR Part 265.112; and (c) at least 180 days of violation of RCRA.

#### **COUNT FIVE**

56. The allegations of Paragraphs 1-16 of the Complaint are incorporated by reference as though set forth here in full.

57. 40 CFR Part 266.103(b)(1) requires that owners or operators must submit a complete and accurate Certification of Precompliance on or before August 21, 1991. The Certification of Precompliance must certify that the facility will operate within certain conditions established by the owner or operator, under 40 CFR Part 266.103(b)(3), to ensure that emissions from a boiler or an industrial furnace will not likely exceed emissions standards provided in the BIF Rule for metals, particulate matter, chlorine and chloride.

58. 40 CFR Part 266.103(b)(1) states that the facility may burn hazardous waste only under the operating conditions that the owner or operator established in its Certification of Precompliance.

59. On or about August 16, 1991, Respondent submitted a Certification of Precompliance which established a feed rate of total hazardous waste as 69,886 grams per hour (g/hr).

60. Based on information collected during a May 12-13, 1993, U.S. EPA inspection and a review of information contained within U.S. EPA files it is determined that Respondent exceeded its established limit for the feed rate of total hazardous waste established in its aforementioned Certification of Precompliance for Boiler R-1 on the following days: August 21 through September 16, 1991; September 22 through October 15, 1991; October 19, 1991; October 25 through October 26, 1991; October 28 through November 7, 1991; November 9 through November 11, 1991; November 13 through November 15, 1991; November 22 through November 24, 1991; November 26 through December 1, 1991; December 3, 1991; December 5, 1991; December 10 through December 11, 1991; December 16 through December 17, 1991; January 9, 1992; January 16, 1992; January 20 through January 21, 1992; January 23 through January 27, 1992;



January 29 through February 6, 1992; February 9, 1992; February 11 through February 13, 1992; February 15 through February 16, 1992; February 18 through February 23, 1992; February 25 through March 3, 1992; March 9, 1992; March 27, 1992; April 6 through April 7, 1992; April 9, 1992; April 12, 1992; April 14 through April 24, 1992; April 27, 1992; and May 19, 1992.

61. Respondent's failure to operate in accordance with the feed rate of total hazardous waste established in its Certification of Precompliance constitutes a violation of: (a) 40 CFR Part 266.103(b)(1); and (b) at least 143 days of violation of RCRA.

#### COUNT SIX

62. The allegations of Paragraphs 1-16 of the Complaint are incorporated by reference as though set forth here in full.

63. Pursuant to 40 CFR Part 266.100(a) the emission standards of 40 CFR Parts 266.104, 266.105, 266.106, and 266.107 apply to facilities operating under interim status.

64. Among other things, 40 CFR Part 266.103(c)(1) requires a boiler to be operated in accordance with the applicable emissions standards of 40 CFR Parts 266.104(b) through (e), 266.105, 266.106, and 266.107 at all times when there is hazardous waste in the unit.

65. Pursuant to 40 CFR Part 266.104(b)(1) the stack gas concentration of carbon monoxide (CO) from a boiler burning hazardous waste cannot exceed 100 parts per million by volume (ppmv) on an hourly rolling average basis, continuously corrected to 7 percent oxygen, dry gas basis.

66. Based on information in U.S. EPA files it is determined that Respondent exceeded the CO standard as set forth at 40 CFR Part 266.104(b)(1)

for boiler R-1 on the following days: September 21, 23, 24, 27, 28, 29, 1993 and November 2, 1993.

67. Respondent's failure to operate boiler R-1 in accordance with the CO standard constitutes a violation of: (a) 40 CFR Part 266.103(c)(1); (b) 40 CFR Part 266.104(b)(1); and (c) at least seven (7) days of violation of RCRA.

#### COUNT SEVEN

68. The allegations of Paragraphs 1-16 of the Complaint are incorporated by reference as though set forth here in full.

69. Pursuant to 40 CFR Part 266.100(a) the emission standards of 40 CFR Parts 266.104, 266.105, 266.106, and 266.107 apply to facilities operating under interim status.

70. Among other things, 40 CFR Part 266.103(c)(1) requires a boiler to be operated in accordance with the applicable emissions standards of 40 CFR Parts 266.104(b) through (e), 266.105, 266.106, and 266.107 at all times when there is hazardous waste in the unit.

71. Pursuant to 40 CFR Part 266.104(b)(1) the stack gas concentration of carbon monoxide (CO) from a boiler burning hazardous waste cannot exceed 100 parts per million by volume (ppmv) on an hourly rolling average basis, continuously corrected to 7 percent oxygen, dry gas basis.

72. Based on information in U.S. EPA files it is determined that Respondent exceeded the CO standard as set forth at 40 CFR Part 266.104(b)(1) for boiler R-3 on the following days: July 22, 1993 and October 24 and 28, 1993.

73. Respondent's failure to operate boiler R-3 in accordance with the CO standard constitutes a violation of: (a) 40 CFR Part 266.103(c)(1); (b)

40 CFR Part 266.104(b)(1); and (c) at least three (3) days of violation of RCRA.

COUNT EIGHT

74. The allegations of Paragraphs 1-16 of the Complaint are incorporated by reference as though set forth here in full.

75. 40 CFR Part 266.103(c)(1)(iv) requires the owner or operator to operate in accordance with the operating limit established for the total feed rate of ash in total feedstreams based on the data generated by the compliance test at all times when there is hazardous waste in the unit.

76. Pursuant to 40 CFR Part 266.103(c)(4)(iv)(D) the feed rate limit for ash is established and monitored by knowing the concentration of the substance in each feedstream and the flow rate of the feedstream.

77. The total feed rate of ash in total feedstreams based on operations during the July 9, 1992, compliance test is 11 g/hr.

78. Based on information collected during an April 21, 1994, U.S. EPA inspection and a review of information contained within U.S. EPA files it is determined that Respondent exceeded its total feed rate of ash in total feedstreams established during the compliance test for boiler R-1 on the following days: August 6 through September 2, 1993; September 4, 1993; September 10, 1993; and September 24, 1993.

79. Respondent's failure to operate in accordance with the total feed rate of ash in total feedstreams established during the compliance test for boiler R-1 constitutes a violation of: (a) 40 CFR Part 266.103(c)(1); and (b) at least 31 days of violation of RCRA.

COUNT NINE

80. The allegations of Paragraphs 1-16 of the Complaint are incorporated by reference as though set forth here in full.

81. 40 CFR Part 266.103(c)(1)(iv) requires the owner or operator to operate in accordance with the operating limit established for the total feed rate of ash in total feedstreams based on the data generated by the compliance test at all times when there is hazardous waste in the unit.

82. Pursuant to 40 CFR Part 266.103(c)(4)(iv)(D) the feed rate limit for ash are established and monitored by knowing the concentration of the substance in each feedstream and the flow rate of the feedstream.

83. The total feed rate of ash in total feedstreams based on operations during the July 9, 1992, compliance test is 11 g/hr.

84. Based on information collected during an April 21, 1994, U.S. EPA inspection and a review of information contained within U.S. EPA files it is determined that Respondent exceeded its total feed rate of ash in total feedstreams established during the compliance test for boiler R-3 on the following days: August 6, 1993; August 8 through August 27, 1993; September 1 through September 2, 1993; September 4 through September 8, 1993; September 13, 1993; September 15, 1993; and September 24 through September 28, 1993.

85. Respondent's failure to operate in accordance with the total feed rate of ash in total feedstreams established during the compliance test for boiler R-3 constitutes a violation of: (a) 40 CFR Part 266.103(c)(1); and (b) at least 35 days of violation of RCRA.

COMPLIANCE ORDER

Based on the foregoing findings and pursuant to the authority of Section 3008 of RCRA, 42 U.S.C. §692B, IT IS HEREBY ORDERED THAT:

A. Upon the effective date of this Order, Respondent shall continuously monitor and record on either an instantaneous basis or an hourly rolling average basis the flow rate of the total hazardous waste feeds burned in its boilers.

B. Within thirty (30) days of the effective date of this Order, Respondent shall continuously monitor and record on either an instantaneous basis or an hourly rolling average basis the flow rate of the vapor feedstreams burned in its boilers.

C. Upon the effective date of this Order Respondent shall operate in accordance with the September 30, 1993, Certification of Compliance until such time as a revised Certification of Compliance is submitted pursuant to 40 CFR Part 266.103(c)(8) or a permit is issued under 40 CFR Part 266.102(d) or until certified closure.

D. Within thirty (30) days of the effective date of this Order, Respondent shall determine the concentration of ash, total chloride and chlorine and the BIF metals that are present at detectable levels in the vapor feedstreams burned in its boilers.

E. Respondent shall notify U.S. EPA in writing upon achieving compliance with this Order and any part thereof within fifteen (15) calendar days after the date compliance is achieved. If any required action has not been taken or completed in accordance with any requirement of this Order, Respondent shall notify U.S. EPA of the failure, its reasons for the failure,

and the proposed date for compliance within ten (10) calendar days after the due date set forth in this Order.

F. All reports, submissions, and notifications required by this Order shall be submitted to the United States Environmental Protection Agency, Region V, Waste Management Division, RCRA Enforcement Branch, Attention: Julianne Socha (HRE-BJ), 77 West Jackson Boulevard, Chicago, Illinois 60604.

G. Notwithstanding any other provision of this Order, an enforcement action may be brought pursuant to Section 7003 of RCRA or other statutory authority where the handling, storage, treatment, transportation or disposal of solid or hazardous waste at this facility may present an imminent and substantial endangerment to human health or the environment.

H. Failure to comply with any provision of this Order or to pay the civil penalty assessed below shall subject Respondent to liability for a civil penalty of up to TWENTY-FIVE THOUSAND DOLLARS (\$25,000) for each day of continued noncompliance, pursuant to Section 3008(c) of RCRA, 42 U.S.C. §6928(c).

### III

#### PROPOSED CIVIL PENALTY

Section 3008 of RCRA, 42 U.S.C. §692B, authorizes the assessment of a civil penalty of up to \$25,000 per day for each violation of Subtitle C of RCRA. Based upon the facts alleged above in this Complaint, and in consideration of the seriousness of the violations cited herein, the potential harm to human health and the environment, the continuing nature of the violations and Respondent's good faith efforts to comply, and the ability of the Respondent to pay penalties, Complainant proposes that Respondent be assessed a civil penalty of FIVE HUNDRED SEVENTY-SIX THOUSAND SEVEN HUNDRED NINETY DOLLARS (\$576,790.00) for the violations alleged in this Complaint. Attachment 1 to this Complaint

provides a detailed summary for the proposed civil penalty. Respondent may pay this penalty by certified or cashier's check, payable to "Treasurer, the United States of America," and remit to the United States Environmental Protection Agency, Region V, P.O. Box 70753, Chicago, Illinois 60673. A copy of the check shall be sent to: Solid Waste and Emergency Response Branch Secretary, Office of the Regional Counsel (CS-29A), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604-3590. A transmittal letter identifying this Complaint shall accompany the remittance and the copy of the check.

## IV

OPPORTUNITY TO REQUEST A HEARING

In accordance with the Administrative Procedure Act (the APA), 5 U.S.C. §§551 et seq., you have the right to request a hearing to contest any material fact contained in this Complaint and Compliance Order, and/or to contest the appropriateness of the proposed compliance schedule or amount of the penalty. Any hearing that you request will be held and conducted in accordance with the provisions of the APA, 5 U.S.C. §§551 et seq., and the "Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits," 40 C.F.R. Part 22. A copy of these rules accompanies this Complaint.

If you wish to avoid being found in default, you must file a written Answer to this Complaint with the Regional Hearing Clerk, Planning and Management Division (MF-10J), U.S. Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604-3590, by NOV 30 1994. The Answer must clearly and directly admit, deny or explain each of the factual allegations contained in the Complaint with respect to which Respondent has any

knowledge, or clearly state that Respondent has no knowledge as to particular factual allegations in the Complaint. The Answer should also state:

1. The circumstances or arguments that you allege constitute the grounds of defense;
2. The facts that you intend to place at issue; and
3. Whether you request a hearing.

Failure to deny any of the factual allegations in this Complaint constitutes admission of the undenied allegations.

A copy of this Answer and any subsequent documents filed in this action should be sent to Jerome Kujawa, Assistant Regional Counsel, Office of Regional Counsel (CS-30A), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604-3590. Mr. Kujawa may be telephoned at (312) 886-6731.

If you fail to file a written Answer, with or without a Request for Hearing, by the required date, the Regional Administrator or Presiding Officer may issue a Default Order. Issuance of this Default Order will constitute a binding admission of all facts alleged in the Complaint and a waiver of your right to a hearing under RCRA. The civil penalty proposed in this Complaint shall then become due and payable without further proceedings sixty (60) days after a Final Order of Default is issued pursuant to 40 CFR Part 22.17(a). In addition, the default penalty is subject to the provisions relating to imposition of interest, penalty and handling charges set forth in the Federal Claims Collection Act of 1966, 31 U.S.C. §3717. Interest will accrue on the default penalty at the rate established by the Secretary of the Treasury pursuant to 31 U.S.C. §3717. U.S. EPA will impose a late payment handling charge of \$15.00 for each subsequent thirty (30) day period over which an unpaid



balance remains. In addition, U.S. EPA will apply a six (6) percent per annum penalty on any principal amount not paid within ninety (90) days of the date that the Default Order is signed by the Regional Administrator or Presiding Officer.

## V

SETTLEMENT CONFERENCE


Whether or not you request a hearing, you may request an informal conference in order to discuss the facts of this case and to arrive at a settlement. To request a settlement conference, write to Julianne Socha, RCRA Enforcement Branch (HRE-BJ), United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604-3590, or telephone her at (312) BB6-4436.

Your request for an informal settlement conference does not extend the thirty (30) day period during which you must submit a written Answer and Request for Hearing. You may pursue the informal conference procedure simultaneously with the adjudicatory hearing procedure.

U.S. EPA encourages all parties against whom a civil penalty is proposed to pursue the possibilities of settlement through an informal conference. However, U.S. EPA will not reduce the penalty simply because such a conference is held. Any settlement that may be reached as a result of such conference shall be embodied in a written Consent Agreement and Final Order (CAFO) issued by the Director, Waste Management Division, U.S. EPA, Region 5. The issuance of

such a CAFO shall constitute a waiver of your right to request a hearing on any stipulated matter in the Agreement.

Dated this 31 st day of October, 1994.

  
 Norman R. Niedergang  
 Associate Division Director for RCRA  
 Waste Management Division  
 Complainant  
 U.S. Environmental Protection Agency  
 Region V

RECEIVED  
REGIONAL HEARING  
CLERK

SEP OCT 31 PM 2:56

CERTIFICATE OF SERVICE

US ENVIRONMENTAL  
PROTECTION AGENCY

I hereby certify that I have caused a copy of the foregoing Complaint to be served upon the person designated below, on the date below, by causing said copy to be deposited in the U.S. Mail, First Class and certified-return receipt requested, postage prepaid, at Chicago, Illinois, in an envelope addressed to:

C.T. Corporation System  
815 Superior Avenue, N.E.  
Cleveland, Ohio 44114

Katherine M. Anderson, Manager  
Environmental, Health & Safety  
The Dow Chemical Company  
Hanging Rock Plant  
Rt. 2, Box 253  
Ironton, Ohio 45638

I have further caused the original of the Complaint and this Certificate of Service to be served in the Office of the Regional Hearing Clerk located in the Planning and Management Division, U.S. EPA, Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604, on the date below.

These are said persons' last known addresses to the subscriber.

Dated this 31st day of October, 1994.

Amita Perry  
Secretary, RCRA Enforcement Branch  
U.S. EPA, Region V



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HR-8J

SEP 21 1994

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

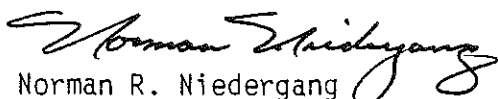
Mr. Michael Savage  
Division of Hazardous Waste Management  
Ohio Environmental Protection Agency  
P.O. Box 1049  
Columbus, Ohio 43266-1049

Re: The Dow Chemical Company  
Hanging Rock Plant  
OHD 039 128 913

Dear Mr. Savage:

This letter serves notice that the United States Environmental Protection Agency is preparing a formal enforcement action under Section 3008(a) of the Resource Conservation and Recovery Act against The Dow Chemical Company, Hanging Rock Plant, Ironton, Ohio. The complaint alleges violations of the standards for Hazardous Waste Burned in Boilers and Industrial Furnaces found at 40 CFR Part 266 Subpart H. As usual, both you and the appropriate district office will be furnished a copy of the complaint when it is issued. If there are any questions regarding the above, please call Julianne Socha or Kevin Pierard of my staff at 312/886-4436 or 312/886-4448, respectively.

Sincerely yours,

  
Norman R. Niedergang  
Associate Division Director for RCRA  
Waste Management Division

cc: OEPA - SEDO

HRE-8J:JSocha:js:091294:6-4436:a:\dow8a2.1tr (Jac's Enforcement Disk 3)

OFFICIAL FILE COPY

SIGNATURE/INITIAL CONCURRENCE REQUESTED - RCRA ENFORCEMENT BRANCH (REB)								
SC/BR/OFC SECRETARY			AB 1324/94			CAF 9-14-94	9/16/94	
INITIATOR /AUTHOR	IL/IN TES CHIEF	MI/WI TES CHIEF	MN/OH TES CHIEF	IL/MI/WI EPS CHIEF	IN/MN/OH EPS CHIEF	REB BRANCH CHIEF	RCRA ASSOC. DIR.	WMD DIVISION DIRECTOR
bc 09/22/94	X	X	74P 9-13-94	X	X	74P 9/20/94	21 9/21	X



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

APR 29 1994

HRE-8J

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Katherine Anderson, Environmental Safety Manager  
Dow Chemical, U.S.A.  
Hanging Rock Plant  
Rt. 2 Box 253  
Ironton, Ohio 45638

Dear Ms. Anderson:

Enclosed please find a copy of an inspection report for the April 21, 1994, compliance evaluation inspection of Dow Chemical's facility located in Ironton, Ohio, EPA I.D. No. OHD 039 128 913. This compliance evaluation inspection was performed pursuant to Section 3007 of the Resource Conservation and Recovery Act in order to evaluate the facility's compliance with the standards applicable to Hazardous Waste Burned in Boilers and Industrial Furnaces set forth at 40 CFR Part 266 Subpart H (the BIF Rule). Attachments to this inspection report which are reproductions of facility records are not enclosed. Copies of the aforementioned attachments can be requested by contacting me at 312-886-4436.

The information collected during this inspection is currently being evaluated for compliance with the BIF Rule. Should you have any questions feel free to contact me at the above number.

Sincerely,

Julianne Socha, Environmental Engineer  
Technical Enforcement Section 1  
RCRA Enforcement Branch

Enclosure (1)

cc: Mike Mossel, OEPA  
w/ enclosure

HRE-8J:JSocha:js:6-4436:032394:a:\dowinsp2.1tr (Jac's Enforcement Disk 3)

OFFICIAL FILE COPY



Printed on Recycled Paper



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

MAR 23 1994

HRE-8J

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Katherine Anderson, Environmental Safety Manager  
Dow Chemical, U.S.A.  
Hanging Rock Plant  
Rt. 2 Box 253  
Ironton, Ohio 45638

Dear Ms. Anderson:

Enclosed please find a copy of an inspection report for the May 12-13, 1993, compliance evaluation inspection of Dow Chemical's facility located in Ironton, Ohio, EPA I.D. No. OHD 039 128 913. This compliance evaluation inspection was performed pursuant to Section 3007 of the Resource Conservation and Recovery Act in order to evaluate the facility's compliance with the standards applicable to Hazardous Waste Burned in Boilers and Industrial Furnaces set forth at 40 CFR Part 266 Subpart H (the BIF Rule). Attachments to this inspection report which are reproductions of facility records are not enclosed. Copies of the aforementioned attachments can be requested by contacting me at 312-886-4436.

The information collected during this inspection is currently being evaluated for compliance with the BIF Rule. Should you have any questions feel free to contact me at the above number.

Sincerely,

Julianne Socha, Environmental Engineer  
Technical Enforcement Section 1

Enclosure (1) *Mar 17, 1993 inspection report and Attachment 7*

cc: Mike Mossel, OEPA  
w/ enclosure

HRE-8J:JSocha:js:6-4436:032394:a:\dowinsp.1tr (Jac's Enforcement Disk 3)

AUTHOR'S FILE COPY



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

MAY 11 1993

REPLY TO THE ATTENTION OF:

HRE-8J

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Ms. Kathy Anderson  
Dow Chemical Company  
Hanging Rock Plant  
Ironton, Ohio 45638

Re: RCRA §3007 Information Request  
Dow Chemical Company  
OHD 039 128 913

Dear Ms. Anderson:

The United States Environmental Protection Agency (U.S. EPA) is currently investigating the compliance status of hazardous waste burned in Boilers and Industrial Furnaces (BIFs), as defined by 40 CFR Sections 266.100 through 266.112, at Dow Chemical Company (the Facility) located in Ironton, Ohio. This investigation requires inquiry into matters relating to the identification, nature, and quantity of hazardous waste that has been or may be burned at the Facility from January to December of 1993. Pursuant to the authority of Section 3007 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §6927, as amended, you are hereby requested to respond to the information request set forth herein.

The information requested is intended to assist our investigation of the waste management activities at the Facility in order to determine the Facility's compliance status with applicable hazardous waste regulations. The requested information must be furnished to this office on a monthly basis as follows:

- (1) Information for the months of January through April 1993 shall be submitted within thirty (30) days of receipt of this letter;
- (2) Information for each month from May through December 1993 shall be submitted within fifteen (15) calendar days of the end of each respective month.

The information is required to be submitted notwithstanding its possible characterization as confidential. In that regard you may, under 40 CFR §2.203(a), assert a business confidentiality claim covering all or part of the information provided in the manner described in 40 CFR §2.203(b). Information covered by such a claim will be disclosed by U.S. EPA only to the



extent and by means of the procedures set forth in 40 CFR Part 2, Subpart B. Any request for confidentiality must be made when the information is submitted to U.S. EPA, since any information not so identified may be made available to the public without further notice to you.

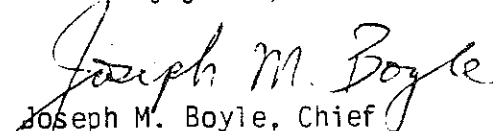
The written statements provided pursuant to this Information Request must, pursuant to 40 CFR §270.11, be submitted under an authorized signature certifying that all matters contained therein are true and accurate to the best of the signatory's knowledge and belief. Any documents submitted to U.S. EPA pursuant to this information request should be certified as true and authentic to the best of the signatory's knowledge or belief.

Compliance with this Information Request set forth herein is mandatory. Failure to respond fully and truthfully to the Information Request or adequately justify such failure to respond can result in enforcement action by U.S. EPA pursuant to Section 3008 of RCRA.

Should the signatory find, at any time after the submittal of requested information, that any portion of the submitted information is false, the signatory should so notify U.S. EPA. If any answer certified as true should be found to be untrue or misleading, such is subject to prosecution pursuant to 18 U.S.C. §1001 or §3008(d) of RCRA. U.S. EPA has the authority to use the information requested herein in an administrative, civil, or criminal action.

This Information Request is not subject to the approval requirements of the Paperwork Reduction Act of 1980, 44 U.S.C. Section 3501, et seq. Based on the inspection previously conducted at your facility, U.S. EPA has determined that this information is necessary to ascertain the Facility's compliance status with 8IF requirements. If you have any questions regarding this matter, please contact Mr. Jae B. Lee, of my staff, at (312) 886-3781. Your response should be sent to the United States Environmental Protection Agency, Region 5, Attention: Jae B. Lee, RCRA Enforcement Branch (HRE-8J), 77 West Jackson Boulevard, Chicago, Illinois 60604.

Sincerely yours,



Joseph M. Boyle, Chief  
RCRA Enforcement Branch  
U.S. Environmental Protection Agency  
Region V

Enclosure

cc: Pamela Allen, OEPA

This Information Request pertains to information relating to the operation of BIFs, as defined in 4D CFR §260.10, at the Facility. You must respond to the Information Request on the basis of all information and documents in your possession, custody or control, or in the possession, custody or control of your former or current employees,

agents, servants, contractors, or attorneys. Furnish such information as is available to you, regardless of whether or not it is based on personal knowledge and regardless of the source.

In answering this Information Request, identify all contributing sources of information, including the identification of the person(s) answering the request on your behalf. A separate response must be made to each request set forth in this Information Request.

The information must be provided notwithstanding its possible characterization as confidential information or trade secrets. You are entitled to assert a claim of confidentiality pursuant to Section 3007(b) of RCRA, 42 U.S.C. §6927(b) and 40 CFR §2.203(b) for any information produced that, if disclosed to persons other than officers, employees, or duly authorized representatives of the United States, would divulge information entitled to protection as trade secrets. Any information which the Administrator of this Agency determines to constitute methods, processes or other business information entitled to protection as trade secrets will be maintained as confidential pursuant to the procedures set forth in 40 CFR Part 2. A request for confidential treatment must be made when information is provided, since any information not so identified will not be accorded this protection by the Agency.

Your response should be accompanied by an authorized affidavit from a responsible company official or representative stating that a diligent record search has been completed and there has been a diligent interviewing process with present and former employees who may have

knowledge of the operations relating to hazardous and nonhazardous materials burned or processed in a BIF between January 1, 1993, and December 31, 1993. To the extent that any information you provide relating to the requests is based on the personal knowledge of your employees, agents, or other representatives, this information shall be in the form of a notarized affidavit. Should the signatory find, at any time after submittal of the requested information, that any portion of this submittal certified as true is false or misleading, the signatory should so notify U.S. EPA. If any information submitted under this Information Request is found by U.S. EPA to be untrue or misleading, such is subject to prosecution under Section 1001 of Title 18 of the U.S.C. or Section 3008(d) of RCRA, 42 U.S.C. §6928. U.S. EPA has the authority to use the information requested herein in an administrative, civil, or criminal action.

The information requested herein must be provided to this office on a monthly basis. All information must be provided for the period January 1, 1993 until December 31, 1993. Information for the months of January through April 1993 shall be submitted within thirty (30) days of the receipt of this letter. Information for the months of May through December 1993 shall be submitted within fifteen (15) days of the end of each respective month (e.g., information about May 1993 shall be submitted by June 15, 1993). This information shall be submitted to the United States Environmental Protection Agency, Region 5, Attention: Jae B. Lee, RCRA Enforcement Branch (HRE-8J), 77 West Jackson Boulevard, Chicago, Illinois 60604.

## II. DEFINITIONS

- A. "Automatic waste feed cutoff (AWFC) parameters" are those operational parameters which cause the automatic cutoff of the hazardous waste feedstream when the applicable operating conditions set forth in 40 CFR §266.103 (c)(1)(i) and (v) through (xiii) (57 FR 45000) deviate from those established in the certification of compliance.
- B. "AWFC occurrence" means the actual cutoff of hazardous waste feedstream(s) due to the deviation of AWFC parameters from those established in the certification of compliance.
- C. "BIF" means a boiler or an industrial furnace burning hazardous waste whose owner or operator is subject to 40 CFR Part 266, Subpart H.
- D. "BIF metals" mean antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium (see 40 CFR §266.106).
- E. "Boiler" means an enclosed device using controlled flame combustion, as defined under 40 CFR §260.10.
- F. "Burn" means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient (see 40 CFR §266.100(a)).

- G. "Certification of compliance" means the document submitted by the Respondent based on the compliance test, which establishes limits on the operating parameters specified in 40 CFR §266.103(c)(1) (57 FR 45000) and documents compliance with the emission limits for metals, chloride, chlorine, particulate matter, and carbon monoxide/hydrocarbons.
- H. "Certification of precompliance" means the document submitted by the Respondent covering the period of time between August 21, 1991, and the date Respondent submits a certification of compliance which among other things establishes limits on the operating parameters specified in 40 CFR §266.103(b)(3) (as amended 57 FR 38565).
- I. "Certified" means information as recorded in the certification of compliance or certification of precompliance.
- J. "Continuous Monitor" is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average values at least every 60 seconds.
- K. "Facility" means the facility defined on the first page of this Information Request and all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units

(e.g., one or more landfills, surface impoundments, or combinations of them), as defined in 40 CFR §260.10.

- L. "Feed rate" means the mass rate at which BIF metals, total chlorine, and ash are introduced into a BIF unit. Feed rates are established and monitored by knowing the concentration of the substance in each feedstream and the flow rate of the respective feedstream.
- M. "Flow Rate" means the rate of each feedstream introduced into a BIF over time.
- N. "Feedstream" means any material burned in a BIF, including any liquid, semi-liquid/solid, or solid hazardous or nonhazardous waste, fuels (e.g., coal, oil, natural gas, etc.), industrial furnace feedstocks, and any other material.
- O. "Hazardous waste" means a hazardous waste as defined in 40 CFR §§260.10 and 261.3.
- P. "Hazardous waste feedstream" means any pumpable and/or nonpumpable feedstream which is or contains hazardous waste.
- Q. "Hourly rolling average" is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

- R. "Industrial furnace" means any of the enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy, as defined in 40 CFR §260.10.
- S. "Substance" means BIF metals, total chloride/chlorine, and ash, as specified in 40 CFR §266.103 (b)(5)(iii).
- T. "Total feedstreams" mean the combination of the hazardous waste feedstreams and all other feedstreams burned in a BIF.
- U. "You" or "Respondent" shall mean the addressee of this Request, the addressee's officers, managers, employees, contractors, trustees, partners, successors, assignees, and agents.
- V. All terms not defined herein shall have their ordinary meaning, unless such terms are defined in RCRA, 40 CFR Part 300 or 40 CFR Parts 260-280, in which case the statutory or regulatory definitions shall apply.



III. Request for Information Regarding Compliance with Feed Rate Limits

- A. Provide the maximum concentration of each substance in each feedstream burned by you in a BIF for each day of the month. In order to determine the daily maximum concentrations for each substance, Respondent shall use the most current analytical and/or other type of data. If more than one set of information and/or data was collected, then Respondent shall report the higher maximum concentration for each substance for each feedstream for each day of the month. If a substance was not detected above the detection limit, then Respondent shall so indicate and provide the detection limit for the analytical method used. The unit of measurement shall be milligram per kilogram (mg/kg) or microgram per kilogram (ug/kg) for solid material and milligram per liter (mg/l) or microgram per liter (ug/l) for liquid material. Respondent shall indicate the date of analysis and/or evaluation of the feedstream, and other information used to determine maximum concentration.
- B. Provide the maximum flow rate of each feedstream burned in each BIF for each day of the month. The daily maximum flow rate of each feedstream shall be the highest flow rate of each feedstream for the day, based on an instantaneous or hourly rolling average basis. (If the flow rate of each feedstream is not determined from a direct monitoring device, Respondent shall indicate the method used to determine the flow rate of each feedstream.) Provide this information in gram per hour (g/hr) and if a chemical

property (e.g., density) is used for conversion, Respondent shall specify such chemical property and source of such information.

- C. (1) Provide the maximum feed rate for each BIF metal burned in each BIF for each day of the month with respect to the: (A) total feedstreams, except that 1) facilities that comply with Tier I or adjusted Tier I metals feed rate screening limits may set operating limits at the metals feed rate screening limits determined under 40 CFR §266.106(b) or (e), and 2) industrial furnaces that must comply with the alternative metals implementation approach under paragraph 40 CFR §266.103 (c)(3)(ii) (57 FR 45000 - 45001) must specify limits on the concentration of each metal in the collected particulate matter in lieu of feed rate limits for total feedstreams; (B) total hazardous waste feedstreams (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under 40 CFR §266.106 (b) or (e)); and (C) total pumpable hazardous waste feedstream (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under 40 CFR §266.106 (b) or (e)).
- (2) Provide the maximum feed rate of chlorine and chloride in total feedstreams for each day of the month.
- (3) Provide the maximum feed rate of ash in total feedstreams burned by you in a BIF (except for cement kilns and light-weight aggregate kilns) for each day of the month.
- (4) Provide the minimum flue gas flow rate for each BIF operated by you for each day of the month converted to dry cubic feet per

minute at 68 degrees (Fahrenheit) and 7 percent oxygen in the unit of dry standard cubic feet per minute. If the flue gas flow rate is not monitored, then provide the flue gas flow rate recorded in the certification of compliance or certification of precompliance.

In providing information pursuant to this paragraph, the daily maximum feed rate of each BIF metal, chlorine, chloride and ash shall be determined by multiplying the daily maximum concentration of the substance in the feedstream, determined from Paragraph III.A., above, by the daily maximum flow rate of the same feedstream, determined from Paragraph III.B., above. The unit of measurement shall be g/hr for the daily maximum feed rate of each substance.

- D. For each maximum feed rate of each substance calculated in Paragraph III.C., above, provide the feed rate as set forth in the certification of compliance or certification of precompliance submitted as more fully described below.

(1) Provide the feed rate limit of each BIF metal in the following feedstreams: (A) total feedstreams, except that 1) facilities that comply with Tier I or adjusted Tier I metals feed rate screening limits may set operating limits at the metals feed rate screening limits determined under 40 CFR §266.106(b) or (e), and 2) industrial furnaces that must comply with the alternative metals implementation approach under paragraph 40 CFR §266.103 (c)(3)(ii) (57 FR 45000 - 45001) must specify limits on the concentration of each metal in the collected particulate matter in

lieu of feed rate limits for total feedstreams; (B) total hazardous waste feedstreams (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under 40 CFR §266.106 (b) or (e)); and (C) total pumpable hazardous waste feedstream (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under 40 CFR §266.106 (b) or (e)).

(2) Provide the feed rate limit of chlorine and chloride in total feedstreams.

(3) Provide the feed rate of ash in total feedstreams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not required.

If Respondent has submitted a certification of precompliance and notified U.S. EPA of an automatic extension, or obtained a case-by-case extension of time under 40 CFR §266.103(c)(7)(ii), the feed rate limit for a substance shall be the certified limit on its certification of precompliance. If Respondent has submitted a certification of compliance based in a compliance test, the feed rate limit for a substance shall be the certified limit in its certification of compliance. As defined in 40 CFR §266.103(c)(4)(iv), the feed rate limit for a substance shall be established based on the compliance test data as an average of all test runs of the highest hourly rolling average value for each run. (Note: Respondent shall not extrapolate the emission data generated from the compliance test to full load conditions in order to establish a feed rate limit.) The unit of measurement

shall be g/hr for the feed rate limit of each substance.

- E. If the daily maximum feed rate of any substance, as determined in Paragraph III.C., above, is higher than the feed rate limit for such substance as determined by Paragraph III.D., above, then the Respondent shall provide detailed information regarding the feedstream burned in the relevant BIF unit for that day. The information shall include, but not be limited to, all chemical analyses and/or other information for each feedstream, the monitored and/or determined flow rate, and the feed rate of each substance in each feedstream which was burned in the BIF unit for the day such deviation occurred.

IV. Request for Information Regarding Compliance with Operating Limits - Automatic Waste Feed Cutoff (AWFC)

- A. For each AWFC parameter, provide the highest measurement which is either recorded or calculated based on an instantaneous or hourly rolling average basis for each hour, for each day of the month. Carbon monoxide concentration, and, where required, hydrocarbon concentration in the stack gas, shall be obtained from the continuous emission monitoring device on an hourly rolling average basis (i.e., over any 60 minute period), continuously corrected to 7 percent oxygen, dry gas basis.
- B. Provide the AWFC operating limits certified in Respondent's certification of compliance for each AWFC parameter. As defined in 40 CFR §266.103(c)(4)(iv), the operating limits shall be established based on compliance test data as the average over all test runs of the highest hourly rolling average value for each run. (Note: Respondent shall not extrapolate the operating data generated from the compliance test to full load condition to establish the operating limits.)
- C. For any exceedence of any AWFC operating limits, as identified in Paragraph IV.B., above, Respondent shall provide detailed information, including but not limited to, the AWFC parameter, corresponding measurement of the AWFC parameter, the exact date, time and duration of each deviation, and the corresponding waste feed rate for the actual AWFC occurrence.

- D. Provide a copy of all documents (e.g., operating record, operation log, etc.) which contain any description of the time and/or duration of any AWFC occurrence, the cause of such AWFC occurrence and the post-AWFC occurrence activities.
  - E. If any AWFC occurred for reasons other than a deviation from AWFC limits, including, but not limited to, calibration, inspection, repair, mechanical malfunction, and human error, Respondent shall submit detailed information concerning such activities.
  - F. If the AWFC was not activated despite a deviation from operating parameters, Respondent shall submit, in a separate response, the operating parameter which was deviated from, and the time and duration of such deviation(s). Respondent shall also describe any activities conducted by the facility to repair such failure of the AWFC to be activated, and shall demonstrate that such failure was or will be repaired.
- V. Request for Information Regarding Compliance with Minimum Temperature Requirement and other Requirements.
- A. For each AWFC occurrence, provide the minimum combustion chamber temperature (or the indicator of combustion chamber temperature) monitored and/or recorded during the AWFC period, as defined under 40 CFR §266.1D3(g). Provide the minimum combustion chamber temperature (or the indicator of combustion chamber temperature) that occurred during the compliance test which must be maintained while hazardous waste or hazardous waste residue remains in the combustion chamber, with the minimum temperature during the

compliance test defined under 40 CFR §266.103(g)(1)(i) and (ii). If Respondent is complying with the Tier I or adjusted Tier I metals feed rate screening limit under 40 CFR §266.106(b) or (e), Respondent shall also provide this information.

- B. If Respondent feeds hazardous waste for a purpose other than solely as an ingredient at any location other than the hot end as specified in 40 CFR §266.103(a)(5), Respondent shall provide for each hour, of each day, of the month (1) the minimum combustion gas temperature at the location where the hazardous waste was injected and the location of such combustion gas temperature measurement as it relates to the point of hazardous waste injection, (2) the minimum oxygen level in combustion gas and the location of such oxygen level measurement as it relates to the point of hazardous waste injection, and (3) the type of combustion device and location of such hazardous waste injection. The minimum combustion temperature and oxygen level denoted in this paragraph shall be the lowest combustion temperature or oxygen level collected from monitored data either on an instantaneous or hourly rolling average basis. If any minimum combustion temperature determined by this paragraph is less than 1800 degrees (Fahrenheit), then Respondent shall provide all of the monitored and recorded combustion chamber temperature data, at least once every 15 seconds of the hour. Respondent shall also demonstrate that the minimum oxygen level present in the combustion gas, as set forth in this paragraph, is adequate to combust organic constituents in the waste as required under 40 CFR §266.103



(a)(5).

VI. Other Requests

- A. If Respondent operates more than one BIF unit under interim status, Respondent shall provide all of the information requested above separately for each BIF unit.
- B. Provide the following certification: "I certify under the penalty of law that I have personally examined and am familiar with the Information Request and request for documents. Based on my review of all relevant documents and inquiry of those individuals immediately responsible for providing all relevant information and documents, I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Issued this 11<sup>th</sup> day of May, 1993.

Joseph M. Boyle  
Joseph M. Boyle, Chief  
RCRA Enforcement Branch  
U.S. Environmental Protection Agency  
Region V



State of Ohio Environmental Protection Agency

**Southeast District Office**

2195 Front Street  
Logan, Ohio 43138-9031  
(614) 385-8501  
FAX (614) 385-6490

TRACKING - DMM, CM&S  
TO GO ON: ☒ RCRIS ☐ DBASE ☐ FO LOG ☐ USEPA LOG ☐ CJ LOG  
ENTERED: ☒ RCRIS ☐ DBASE ☐ FO LOG ☐ USEPA LOG ☐ CJ LOG  
RCRIS ENTRY CODES: (EVALUATION) \_\_\_\_\_ (ENFORCEMENT) \_\_\_\_\_  
CEI ☐ CI ☒ OTHER \_\_\_\_\_ INITIAL NOV \_\_\_\_\_ FOLLOW-UP NOV \_\_\_\_\_  
FULL RTC ☐ PRTL RTC ☐ TCLP ☐ LDR ☐ SENT TO USEPA: YES ☐ NO ☐

RECEIVED  
WMD RCRA  
RECORD CENTER

MAR 24 1993

*Compliance*

George V. Voinovich  
Governor

November 12, 1992

RE: **LAWRENCE COUNTY  
DOW CHEMICAL COMPANY  
RCRA-LQG/TSD  
~~OH039128912~~  
04-44-0022**

OH039128913

Dow Chemical Company  
Hanging Rock Plant  
Gilruth Lane  
Ironton, Ohio 45638

RECEIVED  
OHIO EPA

NOV 16 1992

Attn: Ms. Katherine Anderson

*OHIO EPA RECORDS UNIT*

Dear Ms. Anderson:

On October 30, 1992, Ohio EPA received your response to our September 30, 1992, RCRA Notice of Violation, resulting from Ohio EPA's September 15, 1992, inspection. Based upon our review of the information provided, Dow has returned to compliance for the following violations of the Ohio Administrative Code (OAC):

1. 3745-52-34 Accumulation time of hazardous waste;
2. 3745-65-16 Personnel training;
3. 3745-65-51 Content of contingency plan;
4. 3745-65-56 Emergency procedures;
5. 3745-65-31 Operation and maintenance of facility;
6. 3745-65-51 Purpose and implementation of contingency plan;
7. 3745-65-33 Testing and maintenance of equipment, and  
3745-65-15 General inspection requirements;
8. 3745-65-35 Required aisle space;
9. 3745-66-71 Conditions of containers;
10. 3745-66-74 Inspections.

Dow Chemical has now resolved all violations cited during the September 15, 1992 inspection.

With regard to the contingency plan modifications noted in #3, above, the addition to the plan should note that all sampling and analytical procedures will conform to the requirements of USEPA's SW-846 standard methods publications. The plan is otherwise acceptable. Also, with regard to the waste characterization provided in #1, B., above, for the forktruck sludge, please note that OAC 3745-52-11 and the TCLP characterization procedures both allow the generator of the waste to use knowledge of the waste streams to aid in waste characterizations. It is not always

Dow Chemical Company

November 12, 1992

Page 2

necessary to run the TCLP pesticides, herbicides, and PCB fractions when testing a waste if you are certain that these constituents are not part of the waste stream. This may help save lab time and cost in future characterizations.

If you should have any questions, or if I may be of assistance to you, please contact me at this office.

Sincerely,

A handwritten signature in cursive script that reads "Michael Moschell".

Michael Moschell

Inspector

Division of Hazardous Waste Management

MM/jg

cc: Laurie Stevenson - DHWM, CO

MAY 20 1991

54 R-12

Dow Chemical Company  
Hanging Rock Plant  
Gilruth Lane  
Ironton, Ohio 45638

Attention: Mr. Myron Martin

Re: Compliance Letter  
Dow Chemical  
OHD 039 128 913

Dear Mr. Martin:

On September 7, 1990, the Ohio Environmental Protection Agency (OEPA), representing the United States Environmental Protection Agency (U.S. EPA), conducted a Resource Conservation and Recovery Act (RCRA) inspection of the above referenced facility. The purpose of the inspection was to determine the compliance status of this facility with respect to the applicable hazardous waste management requirements of Chapter 3734 of the Ohio Revised Code, and also the land disposal restriction regulations as set forth in 40 CFR Part 268 and in revisions to 40 CFR Parts 260-265, 268, 270, and 271.

As a result of the inspection, it appears that the subject facility is in compliance with the land disposal restriction regulations found in 40 CFR Part 268.

Thank you for your cooperation. If you have any questions concerning this letter, please contact Bill Wesley of my staff at (312) 886-8095.

Sincerely yours,

Ann Budich, Acting Chief  
IN/MN/OH Enforcement Program Section

Enclosure

cc: Mike Savage, OEPA  
Michael Moschell, SEDO  
bcc: Ann Budich, REB  
5HR-JCK-\Bill\Phyllis\6-8093\Bill\Dow.Chem\May 15, 1991

CONCURRENCE REQUESTED FROM REB			
OTHER STAFF	REB STAFF	REB SECTION CHIEF	REB BRANCH CHIEF
<i>PH</i> 5/15/91	<i>B.W.</i> 5-16-91	<i>ab</i> 5-17-91	

## UNITED STATES EPA REGION V

IN RE:	)	
THE DOW CHEMICAL COMPANY	)	DOCKET NUMBER
HANGING ROCK PLANT	)	VW 001 95
IRONTON, OHIO 45638	)	
(EPA I.D. NUMBER: OHD 039 128 913),	)	
	)	
RESPONDENT.	)	

### DOW'S PREHEARING REQUEST, LOCATION VIEWS AND PREHEARING EXCHANGE

#### DOW'S PREHEARING REQUEST

- 1) The regulations (40 CFR §22.19(a)) require a prehearing conference unless a conference "appears unnecessary."
- 2) One of the purposes of a prehearing conference is to consider settlement (40 CFR § 22.19(a)(1)).
- 3) EPA and Dow have earnestly entered settlement negotiations and are still moving towards settlement. Given sufficient time, it appears reasonably likely that the parties can settle this case and conserve Judicial resources. However, a settlement conference may expedite the settlement process.
- 4) Therefore, Dow requests the scheduling of a settlement conference.

#### DOW'S LOCATION VIEWS

- 1) The June 13, 1995 Order required each party to submit its views as to the place of hearing under 40 CFR §§ 22.19(d) and 22.21(d).
- 2) The preference for location is:
  - a) where the respondent resides,
  - b) where the respondent conducts the business which the hearing concerns,
  - c) in the city where the EPA Region is located, or
  - d) in Washington, DC.

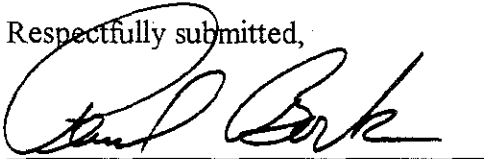
- 3) There are no significant fact issue which will be more easily addressed if the hearing takes place in Ironton, Ohio.
- 4) The first two locations give a procedural advantage to Dow and the third location gives a procedural advantage to EPA enforcement.
- 5) Dow therefore requests that the prehearing and hearing both take place in Washington, DC.

## **DOW'S PREHEARING EXCHANGE**

- 1) Dow plans to call the following witnesses, who are expected to testify to the matters following their names:
  - a) Terry Cox, Continental Operations Environmental Manager -- General matters, including the foundation of most of Dow's documents; the relation of the emissions from the Hanging Rock BIF to automobile emissions; reported BIF resolution results at other sites; overview of Hanging Rock BIF and its operations
  - b) Michelle Mizel, Michigan Division Compliance Leader -- Specific matters related to information concerning EPA's agreement to allow the use of extrapolation
  - c) David Stamper, Hanging Rock BIF Environmental Technician -- Specific matters related to the operation of the Hanging Rock BIF, including the lack of ash fouling of the atomizing nozzles on lance tips, which indicates lack of ash in the feed to the BIF
- 2) Dow intends to introduce the following documents at the hearing:
  - a) Dow's complete Waste Analysis Plan which was in place on Aug 21, 1991
  - b) Dow's Closure Plan in place on Aug 21, 1991
  - c) Dow's current Closure Plan
  - d) 56 *Fed. Reg.* 7,149 -- 7,152, February 21, 1991
  - e) Letters from the outside analytical labs addressing the potential that their first analysis was the result of incorrect laboratory procedures and not the result of variation of composition of the analyzed waste feed
  - f) The Clean Fuels Petition Dow submitted in August 1995, and supplemented on September 1, 1995 to exclude, *inter alia* Dow's Hanging Rock BIF from RCRA based of the fact that the fuel it burns is comparable in environmental impact to commercial fuels
  - g) 50 *Fed. Reg.* 629 and 630, Jan 4, 1985
  - h) Hanging Rock's 1991, 1992 and 1993 RCRA Financial Assurance letters

- i) EPA's Technical Implementation Document for EPA's Boiler and Industrial Furnace Regulations EPA-530-R-92-011 BP92-154 947 March 1992, p 10-17
  - j) ENSR March 1, 1995 Report
  - k) 40 CFR § 86.090-8
- 3) Dow intends to introduce the following exhibits at the hearing:
- a) An exhibit comparing the emissions from the Hanging Rock BIF compare to the emissions of an automobile.
  - b) An exhibit illustrating the amount of potential deviation occurred in Dow's exceeding its waste feed limits
  - c) Table indicating the frequency of CO spikes at Dow's Hanging Rock Facility
  - d) An exhibit illustrating how the EPA Penalty Policy could be applied to the counts in question

Respectfully submitted,



Paul Bork  
2030 Building -- Legal  
Midland, MI 48674  
517/636-4399  
517/638-9636 facsimile

Date: March 21, 1996

## SERVICE CERTIFICATE

I hereby certify that I have caused the original of the foregoing PREHEARING EXCHANGE and this SERVICE CERTIFICATE to be filed with the following person:

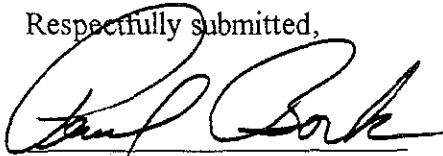
Regional Hearing Clerk (MF-101)  
Planning and Management Division  
Attn: Ms. Jodi Swanson  
US Environmental Protection Agency, Region V  
77 West Jackson Blvd.  
Chicago, Illinois 60604

I hereby certify that I have caused a copy of the foregoing PREHEARING EXCHANGE and this SERVICE CERTIFICATE to be served on following persons:

Honorable Jon G. Lotis  
Chief Administrative Law Judge  
US EPA (M3706)  
401 M Street, S.W.  
Washington, D.C. 20460

Mr. Jerome Kujawa  
Office of Regional Counsel  
US EPA, Region V  
200 West Adams -- 29th Floor  
Chicago, Illinois 60603

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul Bork", written over a horizontal line.

Paul Bork

Date: March 21, 1996





State of Ohio Environmental Protection Agency

Southeast District Office

2195 Front Street  
Lima, Ohio 43138-9031  
(614) 385-8501

Richard F. Celeste  
Governor

September 19, 1990

RE:

LAWRENCE COUNTY  
DOW CHEMICAL COMPANY  
RCRA CORRESPONDENCE  
OHD039128913  
04-44-0022

Dow Chemical Company  
Hanging Rock Plant  
Gilruth Lane  
Ironton, Ohio 45638

RECEIVED  
OHIO EPA

SEP 24 1990

Attention: Mr. Myron Martin

DIV. of SOLID & HAZ. WASTE MGT.

Dear Sir:

On September 7, 1990, Ohio EPA inspected your facility to determine compliance with hazardous waste rules. At the time of inspection, the following violations were noted:

1. Part A Permit terms and conditions: The Hazardous Waste Facility Board issued the facility permit with conditions. Condition #3 requires the permittee and facility to comply with all applicable requirements of Chapter 3737 of the Revised Code and the Ohio hazardous waste rules. The following rule violations also violate this condition of the facility permit.
2. OAC 3745-65-52 Content of Contingency Plan - This rule requires a number of elements be contained in the Contingency Plan. The following items are not adequately addressed in the plan:
  - A. The plan should state as its purpose is to respond to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility, as the rule requires.
  - E. The plan should contain a description of the location of equipment, including its location, physical description, and capabilities. The plan should list all equipment to be used in a hazardous waste emergency, as required by this rule.

In order to properly implement the requirements of paragraph (A) of this rule, it is necessary to describe the actions to be taken by personnel in the event of an emergency. The plan must, therefore, include provisions for complying with OAC 3745-65-56 Emergency Procedures. Upon review, the plan does not include provisions for:

- A. Procedures of immediate notification of personnel, Ohio EPA, and local agencies, as required by this rule.
- B. Sampling released material, if necessary to determine the nature of the material, and the extent of release, as required by this rule. Provisions for establishing clean-up standards for various media should be included, as well.
- E. Preventing reoccurrences of fires, explosions, or releases, as required by this rule.
- G. Containing, treating, storing, and disposing of released material and contaminated soil and equipment, as required by this rule.
- H. Preventing the treating, storing, or disposing of incompatible material until the release is remedied, and post-emergency maintenance of equipment to ensure equipment is clean and fit for use, as required by this rule.

Please make the necessary revisions to the plan and submit the revised plan to this office within 30 days, as evidence of compliance. You were notified of these deficiencies during review of your Part B permit application, in a letter dated December 29, 1989.

- 3. OAC 3745-50-40 and 3745-50-43 Part A Permit application - These rules require a complete Part A application to be submitted, which contains locations of past, present, and future treatment, storage, and disposal areas.

As noted in last year's inspection notice of violation, Dow created a new container storage area and abandoned the area designated on the Part A permit. The two areas are exclusive of each other as documented by Dow's Solid Waste Management Unit certification report. The area now used for storage has no permit, the permitted area has not been closed as required by OAC 3745-66-13.

To return to compliance, both units must be closed or permitted. Since Dow has opted not to pursue the Part B permit, final certification of closure on both units will return Dow to compliance for this violation. Please advise us of your intentions in this matter within 30 days.

Dow Chemical Company  
September 19, 1990  
Page 3

4. OAC 3745-66-12 Closure Plan; amendment of plan - Part (D)(4) of this rule requires the owner or operator of a facility to submit a modified closure plan in accord with the OEPA Director's review comments, or submit a new plan, within thirty days after receiving the Director's written statement. Dow was issued the written statement on August 6, 1990. You indicated Dow's response would not be prepared within this 30 day timeframe. Please submit the modified plan to the director as quickly as possible, as the 30 days has now passed.

At the time of inspection, the Ohio EPA representative was denied use of an agency-owned camera to document any violations observed and to collect physical evidence by means of photographs within the Dow facility. Ohio EPA interprets Ohio Revised Code 3734.07 (see (C) and (D)) to include the taking of photographs. Should photographs be taken of processes or equipment which Dow may consider proprietary in nature, a confidentiality request may be made by Dow to withhold these photographs from the public record.

A copy of the inspection form is enclosed. The land disposal restriction checklist was completed and will be forwarded to USEPA for review. Please provide the information requested within the timeframes given.

Sincerely,



Michael Moschell  
Inspector  
Division of Solid and Hazardous Waste Management

MM/jg

Enclosure

cc: Pam Allen, DSHWM - CO ✓

MAY 8 1990

5HR-12

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Myron Martin  
Dow Chemical Company  
Gilruth Lane  
Ironton, Ohio 45638

Re: Notice of Violation  
Dow Chemical Co.  
OHD 039 128 913

Dear Mr. Martin:

On July 26, 1989, the Ohio Environmental Protection Agency (OEPA), representing the United States Environmental Protection Agency (U.S. EPA), conducted a Resource Conservation and Recovery Act (RCRA) inspection of the above referenced facility. The purpose of the inspection was to determine the compliance status of this facility with respect to the applicable hazardous waste management requirements of Chapter 3734 of the Ohio Revised Code, and also the land disposal restriction regulations as set forth in 40 CFR Part 268 and in revisions to 40 CFR Parts 260-265, 268, 270, and 271.

As a result of the inspection, we have determined that the requirements of the land disposal restriction regulations are being violated.

The facility did not revise its waste analysis plan to meet the requirements of 40 CFR Part 268, as required under 40 CFR Part 265.13. Waste analysis plans must contain all the information which must be known to treat, store, or dispose of waste in accordance with the requirements of 40 CFR Parts 265.13, and 268. Please provide this office with a copy of your revised waste analysis plan addressing the requirements of 40 CFR Part 268.

A copy of the inspection report is enclosed for your records. Please submit to this office, within thirty (30) days of receipt of this Notice of Violation, documentation demonstrating that the above-cited violation has been corrected and indicating what measures have been initiated to assure future compliance. Failure to correct the violations may subject the facility to further enforcement action.

If you have any questions regarding this correspondence, please contact Jean Gromnicki of my staff at (312) 886-4555.

Sincerely yours,

Sally K. Swanson, Chief  
IN/MN/OH Enforcement Program Section

Enclosure

cc: Mike Savage, OEPA  
Mike Moschell, SEDO

bcc: Sally Swanson, REB

5HR-12 gromnicki.walker 6-8093 diskette # 2 mini filename: myron.nov

51-90

RCRA ENFORCE- MENT	REB STAFF	REB SECTION CHIEF	REB CHIEF
INIT. DATE	JH 5-2-90	gls 5-4-90	



State of Ohio Environmental Protection Agency

Southeast District Office

2 Front Street

Logan, Ohio 43138-9031

(614) 385-8501

Richard F. Celeste  
Governor

August 18, 1989

RE: LAWRENCE COUNTY  
DOW CHEMICAL CO.  
RCRA CORRESPONDENCE  
OHD039128913  
04-44-0022

RECEIVED  
OHIO EPA

AUG 22 1989

Dow Chemical Company  
Gilruth Lane  
Ironton, Ohio 45638

Attention: Mr. Myron Martin

DIV. of SOLID & HAZ. WASTE MGT.

Dear Sir:

On July 26, 1989, Ohio EPA conducted an inspection of your facility to determine compliance with Ohio's hazardous waste rules. At the time of inspection, the following violations were noted:

1. OAC Section 3745-50-40 Part A Permit: activities were conducted which were not provided for in the Part A Permit:
  - A. The permit application was submitted in November, 1980, for a container storage unit, which had been operating for several years. The unit was granted interim status by USEPA, and given a Part A Permit by the Ohio HWFAB. From information provided to a USEPA contractor recently, which was documented in the contractor's VSI report to USEPA and confirmed by you during this inspection, Dow abandoned this interim status unit in 1982, and created a new unit several hundred feet away. The old unit was a gravel lot in a field, the new unit added a concrete pad, and later walls and a roof. After consultation with Ohio EPA Central Office staff, and USEPA, Region V, it has been determined the present unit is not a permitted unit. You must submit a Permit Change Request (PCR) to the Ohio EPA Director to include the unit on the permit. Please copy this office on any such request.
  - B. "Treatment", as that term is defined in the regulations, was being conducted at the facility without the proper permits and approvals:



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1. OAC Section 3745-50-45 (C)(7) allows generators to add absorbent to waste in the original container without obtaining a permit to do so. Wastes were being repackaged from original containers to different containers at the facility, at which time absorbent 'slick-wick' was being added to the new container. Please change your standard operating procedures to comply with the provisions of the above-referenced regulation, and send a copy of the revised procedure to this office as evidence of compliance, within thirty days. You may wish to apply for your initial activity in your Part B permit application, also, or through a permit change request, but you must comply with the provisions of -50-40 until the application is approved and the final permit is issued.
  2. Upon review of facility manifests, the special instructions on two manifests noted that an inhibitor is added to tanker loads of a waste styrene mixture to prevent polymerization during shipment. While this may be a necessary activity, it provides 'treatment' to the hazardous waste, and requires a permit. Please include alternate procedures in the facility's procedures making it unnecessary to treat the waste, or submit a Permit Change Request to the Director for this activity, within 30 days. Please submit copies of modified procedures and Permit Change Request (PCR) to this office.
- C. Upon review of print-outs of Dow's past annual facility reports, it was noted that the following waste codes were managed which did not appear on the Part A application:  
D005: 1984 (2600 pounds), 1985 (2800 pounds), 1986 (4050 pounds).  
U226: 1987 (2182 pounds).  
Please submit a Permit Change Request to the OEPA

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Director for these waste streams, or modify plant operations so these wastes are not managed at the permitted unit, and forward a copy to this office within thirty days.

The above-referenced violations are also violations of the terms and conditions of the facility's Part A permit, specifically Condition #1. Please note that none of the activities noted above will be permitted until Ohio EPA acts on a Permit Change Request to include those processes, on Dow's HWFB Permit.

2. OAC Section 3745-52-11 Evaluation of Waste (262.11) - this section requires generators of solid wastes to evaluate their waste streams to determine if the solid wastes are hazardous wastes. These areas are noted:
  - A. Listed waste streams were being designated as D001, characteristic waste streams. As the attached chart from the federal rules illustrates, the generator must first determine if waste streams are listed wastes. In one example, spent filters from an acrylonitrile process stream were characterized as D001, not U009 as required. Gloves, absorbents, and equipment contaminated with listed waste streams were characterized as D001. Solid polymers and other solid waste streams were characterized as D001, which is primarily a designation for liquid wastes.
  - B. Information we request about certain processes and waste streams was denied, due to your assertion that this information was proprietary in nature, and could only be furnished to the agency in writing with confidentiality requirements. Please provide process flow diagrams and waste generation points within the processes, along with a waste evaluation and rationale for each to this office within 60 days.
  - C. Skimmings from the process sewer oil separator, when removed for disposal, were characterized as D001. Please provide this office with an analysis of this waste stream, and your rationale for this characterization.



- D. Manifests indicated discrepancies by the receiving TSD facility when non-hazardous waste oils were shipped and manifested as hazardous wastes. One instance was noted for a tanker-load by the Dowell contractor, when a load your facility considered non-hazardous was manifested as D006, D007, and D008. Please ensure all wastes are properly evaluated prior to shipment off-site.
3. OAC Section 3745-52-34 (C) Accumulation time of hazardous waste (262.34) - This portion of the rule allows generators to accumulate hazardous waste at the point of generation without subjecting the waste containers to the requirements of weekly documented inspections, marking, and dating, provided the containers are stored closed, no more than 55 gallons are accumulated in the generation area, and provided the amount in excess of 55 gallons is marked, labelled, dated, and removed from the generation area within three days. At the time of inspection, the following specific violations of this rule were noted:
- A. AN filter area - 4 fourteen-gallon containers were at the generation point, none had proper labels, the drums were dated 7-11.
  - B. Tank dike near AN filter area - 4 fourteen-gallon drums were dated 7-11, two more were dated 7-3.
  - C. Feed preparation area - Styrene 'blue tone' was drained into a drum, the drum was open with no lid (dated 7-11), but waste was not being added or removed from the drum.
  - D. AN recycle area - no label or date on a drum containing hazardous waste.
  - E. Styron plant process area - one mineral oil (D001) drum had a hazardous waste label and date (7-25) but no lid. Four drums on a skid in this area had lids loose, only one hazardous waste label between them, no date, each was 2/3 full of a viscous liquid, believed to be partial polymer or Dowtherm.

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Please provide documentation to this office within thirty days that the facility has returned to compliance in these areas.

4. OAC Section 3745-65-16 Personnel Training (262.34) - This rule requires generators and facilities to keep RCRA training records, which include job titles and descriptions. Job titles and descriptions were not included in the training records. Please provide job titles and descriptions to this office within thirty days for each employee trained. It was recommended the facility keep a master list of personnel requiring RCRA training in the record, for reference.
5. OAC Section 3745-65-73 Operating Record (265.73) - This rule requires facilities to keep an operating log, which in part, documents spills, malfunctions, and remedial actions taken in response to hazardous waste incidents at the facility. It was noted that discharge of hazardous waste in the tank dike area around the hazardous waste fuel storage tank has recently been cleaned from the dike floor; no note appeared in the operating record. It was noted that a container in the drum storage area had discharged hazardous waste onto the floor. The operator noted this had occurred several days ago from the same container. No notes were in the operating log of either incident, nor was there a mention of remedial actions taken. It is recommended your facility begin using a more detailed checklist, to document the number of drums in storage. The facility should begin to note incidents which occur between weekly inspections. Please revise the facility inspection plan portion of the operating record accordingly, and forward it to this office within thirty days, along with revised portions of the operating record which document these incidents. It is also recommended that the facility inspection plan include provisions for inspecting daily the tank ancillary equipment, per OAC 3745-66-93 (F).
6. OAC Section 3745-65-31 Maintenance and Operation of Facility (265.31) - This rule requires the facility to be designed and operated to minimize the possibility of a release of hazardous waste to the air, land, surface or ground waters. Drums of waste with loose or no lids allow hazardous waste to escape to the air, and invite spills to the land and water. The 300 gallon containers, due to their height, are not designed to allow ready inspection of spillage within the top collar, which allowed spills in this collar to discharge out a hole onto the storage pad.

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Please revise the facility's operations to correct these problems, and submit a response confirming this action to this office within thirty days.

7. OAC Section 3745-65-35 Required Aisle Space (265.35) - This rule requires sufficient aisle space to allow movement of personnel and equipment in areas where hazardous waste is managed. The drum storage area did not have sufficient aisle space to inspect the integrity of containers, the sump was partially covered, and access to it was difficult. Please adhere to a standard aisle space, and notify this office within thirty days of the steps Dow has taken to return to compliance.
8. OAC Section 3745-66-12 Closure Plan, amendment of plan (265.112) - This rule requires facilities to submit a written closure plan to the OEPA Director prior at least 45 days prior to beginning the final closure process for container storage areas. Dow indicated the hazardous waste and six inches of soil were removed from the old container storage area in 1982. No closure plan was submitted to, nor approved by, Ohio EPA for this activity. Please submit a closure plan for this unit to the Director within 60 days, and copy this office on the cover letter and plan.
9. OAC Section 3745-66-73 Management of Containers (265.173) - This rule requires facilities to keep containers of hazardous waste closed, except when adding or removing wastes. As noted above, loose lids or no lids were found on several containers of hazardous waste at the facility. Please revise the operational procedures to correct this problem, close all drums found to be open, and notify this office within thirty days of the steps taken to return to compliance.

Dow indicated that the hazardous waste fuels storage tank had secondary containment designed to meet the specifications of OAC Section 3745-66-93 (265.193). Please forward the specifications to this office within sixty days, and indicate how the regulatory requirements are met by the dike's design.

A copy of the inspection form is enclosed, please call if there are any questions. The Land Disposal Restriction Checklist was also completed, a copy is attached. Please submit the requested information within the timeframes given.

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Sincerely,

A handwritten signature in cursive script that reads "Michael Moschell".

Michael Moschell  
Inspector  
Division of Solid & Hazardous Waste Management

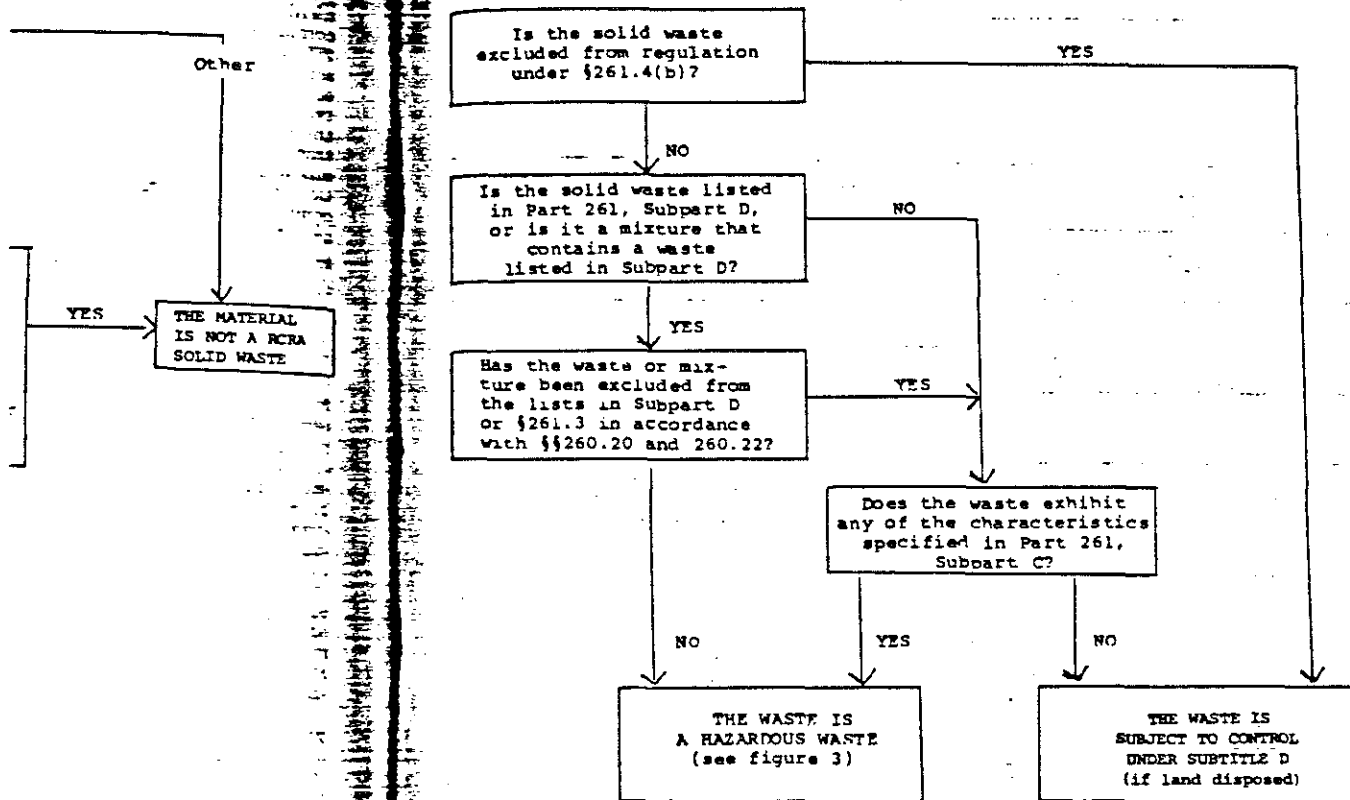
MM/dv

Enclosures

cc: Dave Sholtis, DSHWM, CO

FIGURE 2

DEFINITION OF A HAZARDOUS WASTE



5HR-12

Re: Compliance Letter  
Dow Chemical Company  
OHD 039 128 913

On February 29, 1988, the Ohio Environmental Protection Agency (OEPA), representing the United States Environmental Protection Agency (U.S. EPA), conducted a Resource Conservation and Recovery Act (RCRA) inspection of the above referenced facility. The purpose of the inspection was to determine the compliance status of your facility with respect to the applicable hazardous waste management requirements of RCRA, including the land disposal restrictions of certain spent solvents (F001-F005) and dioxins which became effective on November 8, 1986, and certain hazardous wastes commonly referred to as California list wastes which became effective on July 8, 1987. Regulations are set forth in 40 CFR Part 268 and in revisions to 40 CFR Parts 260-265, 270, and 271. A copy of the inspection report is enclosed for your records.

Thank you for your cooperation. If you have any questions concerning this letter, please contact Mr. Gordon Garcia of my staff at (312) 886-8097.

Sally K. Swanson, Chief  
IN/MN/OH Enforcement Program Section

cc: Mike Savage, OEPA  
Michael Moschell, SEDO

5HR-12:GGARCIA:fer:6-8097:9-19-88:Disk (ARC)

	TYP.	AUTH.	JL/MN TECH. ENF. SEC.	ML/WI TECH. ENF. SEC.	OH/MN TECH. ENF. SEC.	IL/MI/WI ENF. PROG. SECTION	IN/MN/OH ENF. PROG. SECTION	RCRA ENF. BR. CHIEF	O.R. A.D.D.	WASH DIR
INIT. DATE	<i>Lt/KR</i> <i>10-3-89</i>	<i>[Signature]</i> <i>9/26/89</i>					<i>[Signature]</i> <i>S.K.</i> <i>9/28/89</i>			



State of Ohio Environmental Protection Agency

Southeast District Office

2195 Front Street

Logan, Ohio 43138-9031

(614) 385-8501

CE=50-40



March 8, 1988

RE:

LAWRENCE COUNTY  
DOW CHEMICAL COMPANY  
RCRA CORRESPONDENCE FILE  
OHD039128913  
#04-44-0022

Richard F. Celeste  
Governor

RECEIVED

JUL 12 1988

Dow Chemical Company  
Hanging Rock Plant  
Ironton, Ohio 45638

OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

Attention: Mr. Myron Martin

Dear Sir:

On February 29, 1988, Ohio EPA conducted an inspection of your facility to determine compliance with hazardous waste rules. At the time of inspection, the following violations were noted:

Ohio Administrative Code 3745-50-40 Submittal of Hazardous Waste Permit Applications - The storage tank which contains D001 waste for burning in the plant boiler is storing hazardous waste for more than 90 days. Dow submitted a Permit Change Request, and was informed in a letter from Director Tyler dated January 7, 1987, that the addition of this tank is considered to be a modification to the permit. The letter explained that a Part B permit application must be submitted to and approved by the Agency before this tank could receive a permit. The tank must not be operated as a storage tank until you receive the approved, modified permit. In the interim, your operating log should reflect that this tank is pumped to dryness at least every 90 days. The accumulation start date should be recorded each time.

Permit Terms and Conditions - Condition #1 of your facility's permit specifies that "Only those hazardous wastes identified....in the approved permit application may be managed at the facility, and only pursuant to the specified processes and design capacities indicated and set forth in the approved permit application" (emphasis added). Since the storage tank is not on the approved permit, the terms of the permit have been violated.

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It was also noted in the inspection that waste methylene chloride (F002) is generated and stored in drums. A RCRA Land Disposal Restriction Checklist was completed, a copy is attached. The form will be forwarded to USEPA for further action. During discussions on this subject, Dow personnel indicated that past practices with this waste was to mix it with waste oil (reportedly to lower the BTU content for incineration). Please provide to this office, within thirty days, copies of your manifests and facility operating logs for these waste oil/solvent shipments.

A copy of the completed inspection form is attached, please respond, within thirty days, that the above-cited violation has been corrected by the implementation of new operating procedures.

Sincerely,



Michael Moschell

Inspector

Division of Solid & Hazardous Waste Management

MM:dm

cc: Dave Sholtis, DSHWM, CO/w/attachments





RE: Application Number 81-HW-0022  
Lawrence and Scioto Counties

August 26, 1981

William Reinhard  
Supt. Maintenance and Engineering  
The Dow Chemical Company - Hanging Rock Plant  
Old 52 Highway  
Ironton, Ohio 45638

Dear Mr. Reinhard:

On July 13, 1981, Patrick Gorman of the Ohio EPA conducted an inspection of your facility, as part of the Hazardous Waste facility permit review process. Your facility was represented by William Reinhard.

Enclosed are two forms. The one titled "TREATMENT, STORAGE AND DISPOSAL FACILITY" is a copy of the form used during the inspection to evaluate your facility.

The other form, "DEFICIENCY NOTIFICATION TABLE", relates to the "TREATMENT, STORAGE AND DISPOSAL FACILITY" form and specifies what action must be taken where deficiencies were noted. A mark in column four of the "DEFICIENCY NOTIFICATION TABLE" denotes a violation of current regulations or pinpoints areas which will be covered by regulations not yet effective. The capital letter codes in column four are explained on the last page of the "DEFICIENCY NOTIFICATION TABLE".

You are hereby advised that total compliance with the regulations contained in 40 CFR 265 is required as a condition of continuing interim status with the U.S. EPA. Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

Very truly yours,

A handwritten signature in cursive script, reading "Paul Flanigan".

Paul Flanigan, P.E.  
Hazardous Waste Materials Management

PF/bsr

cc: Kathleen Homer, U.S. EPA, Region V  
Patrick Gorman, SEDO

CERTIFIED MAIL